MAY 2000 NUMBER 669 - Part I

Solar-Geophysical Data prompt reports

Data for March and April 2000
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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MAY 2000 NUMBER 669 - Part I

Solar-Geophysical Data prompt reports

Data for March and April 2000

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SOLAR-GEOPHYSICAL DATA

Number 669

(Issued in Two Parts)

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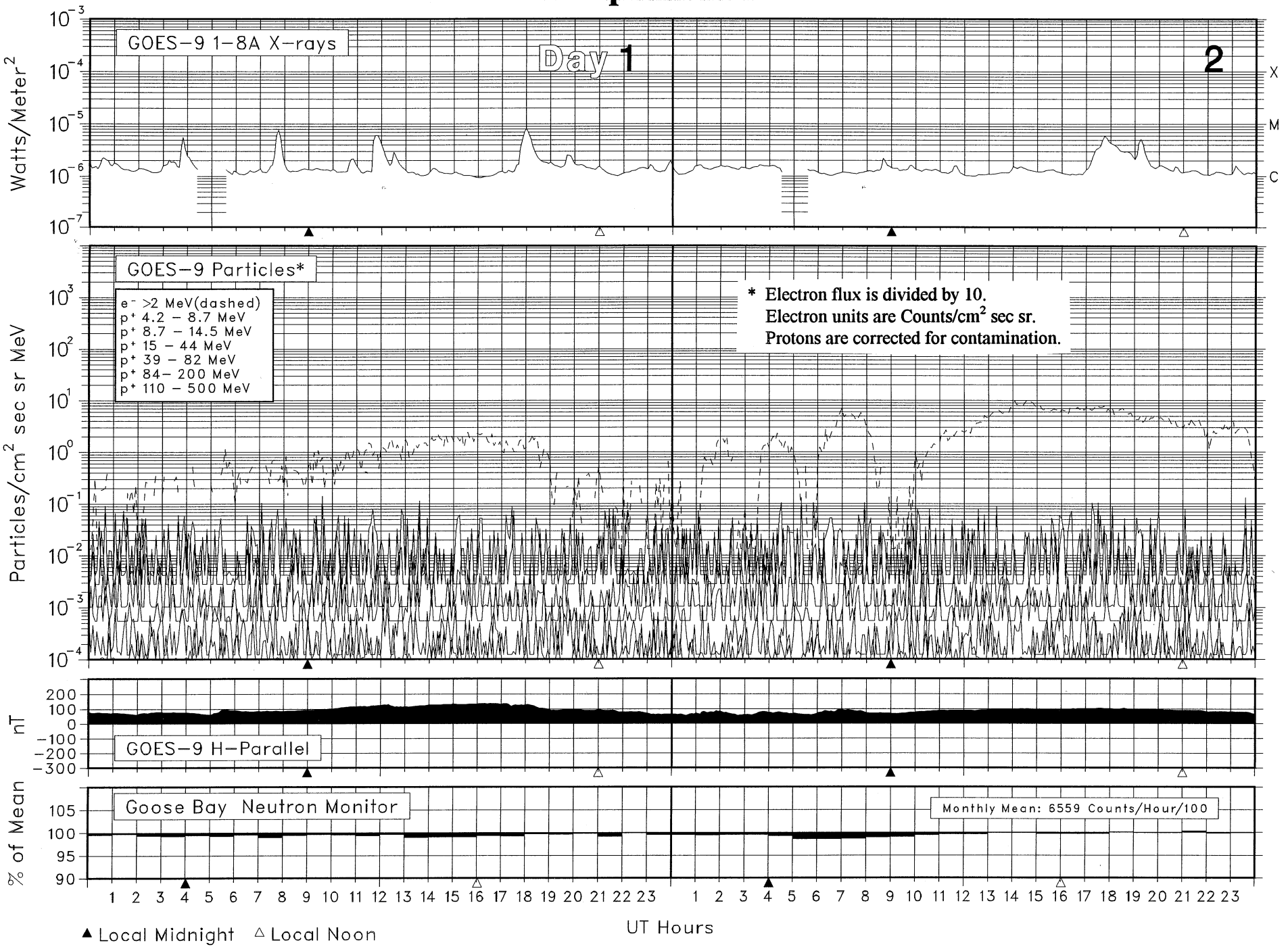

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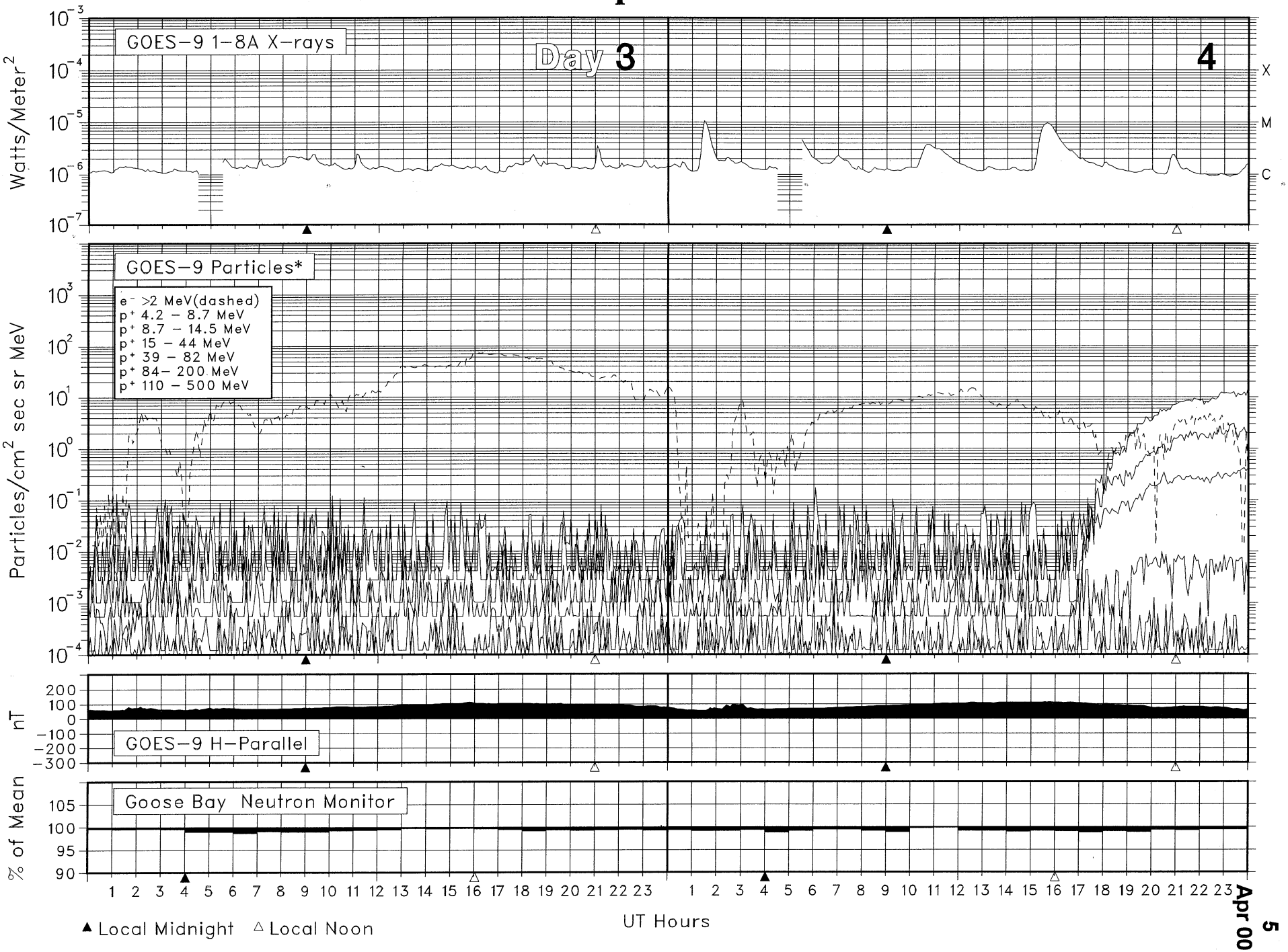

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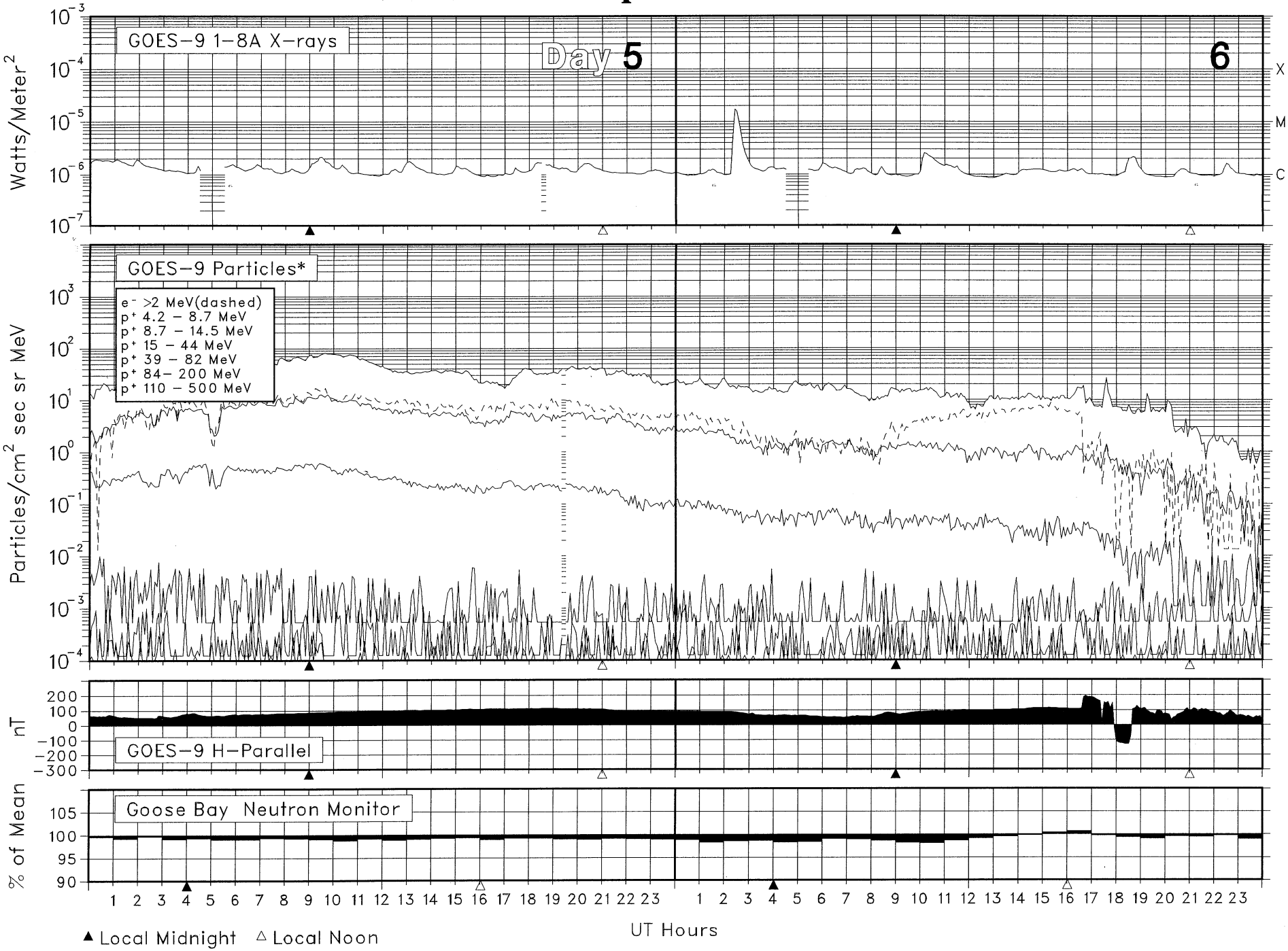

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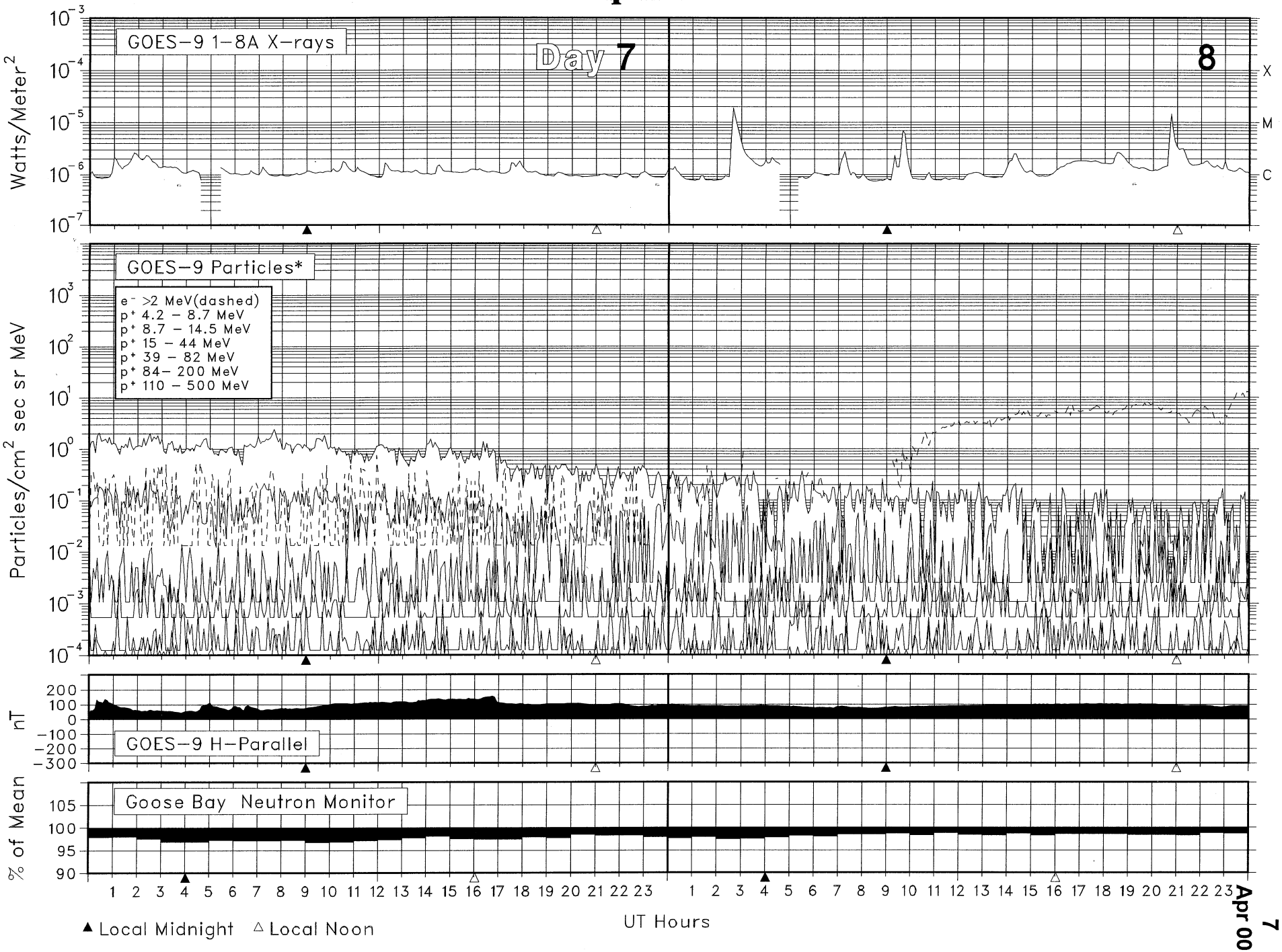

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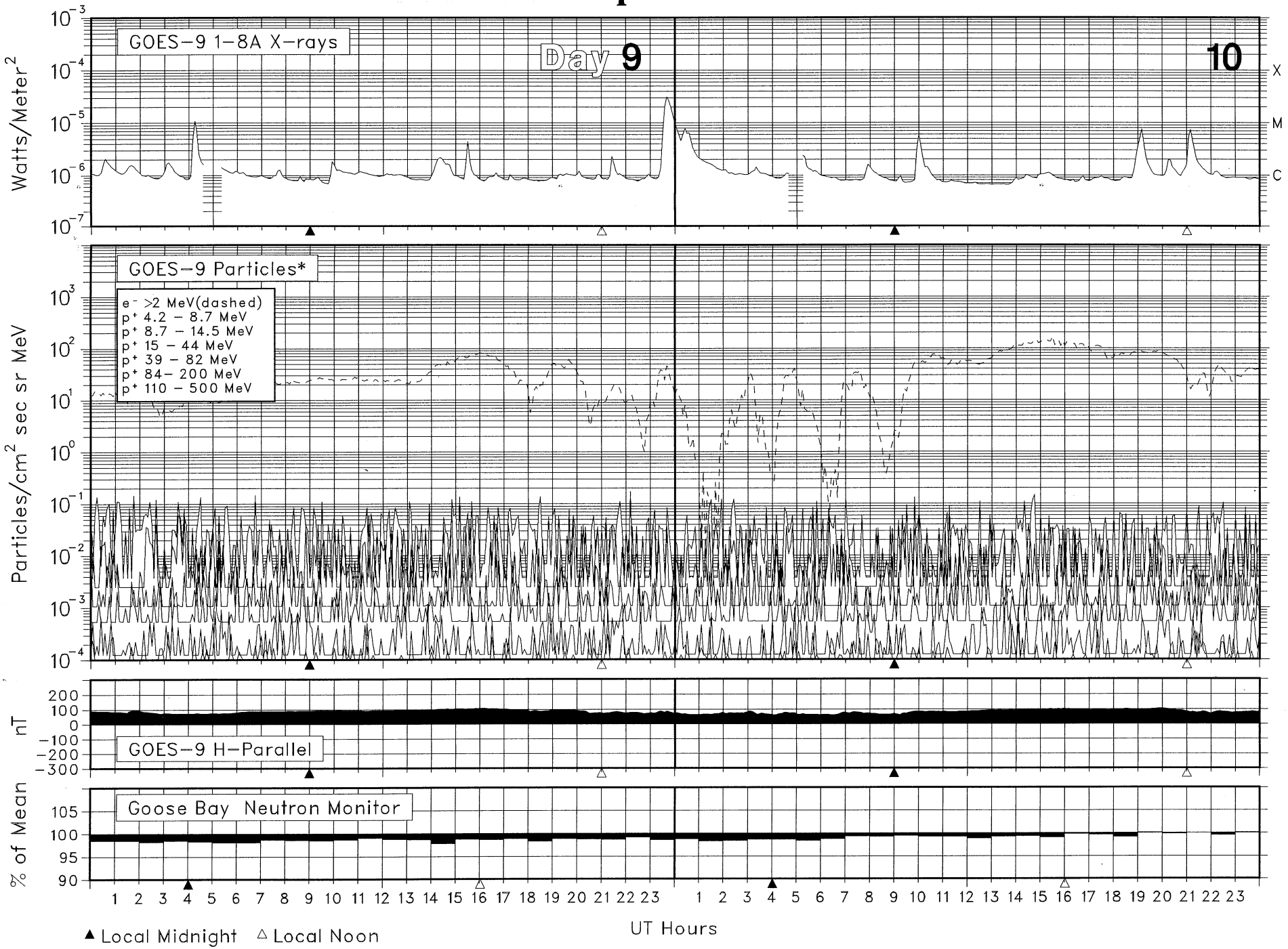

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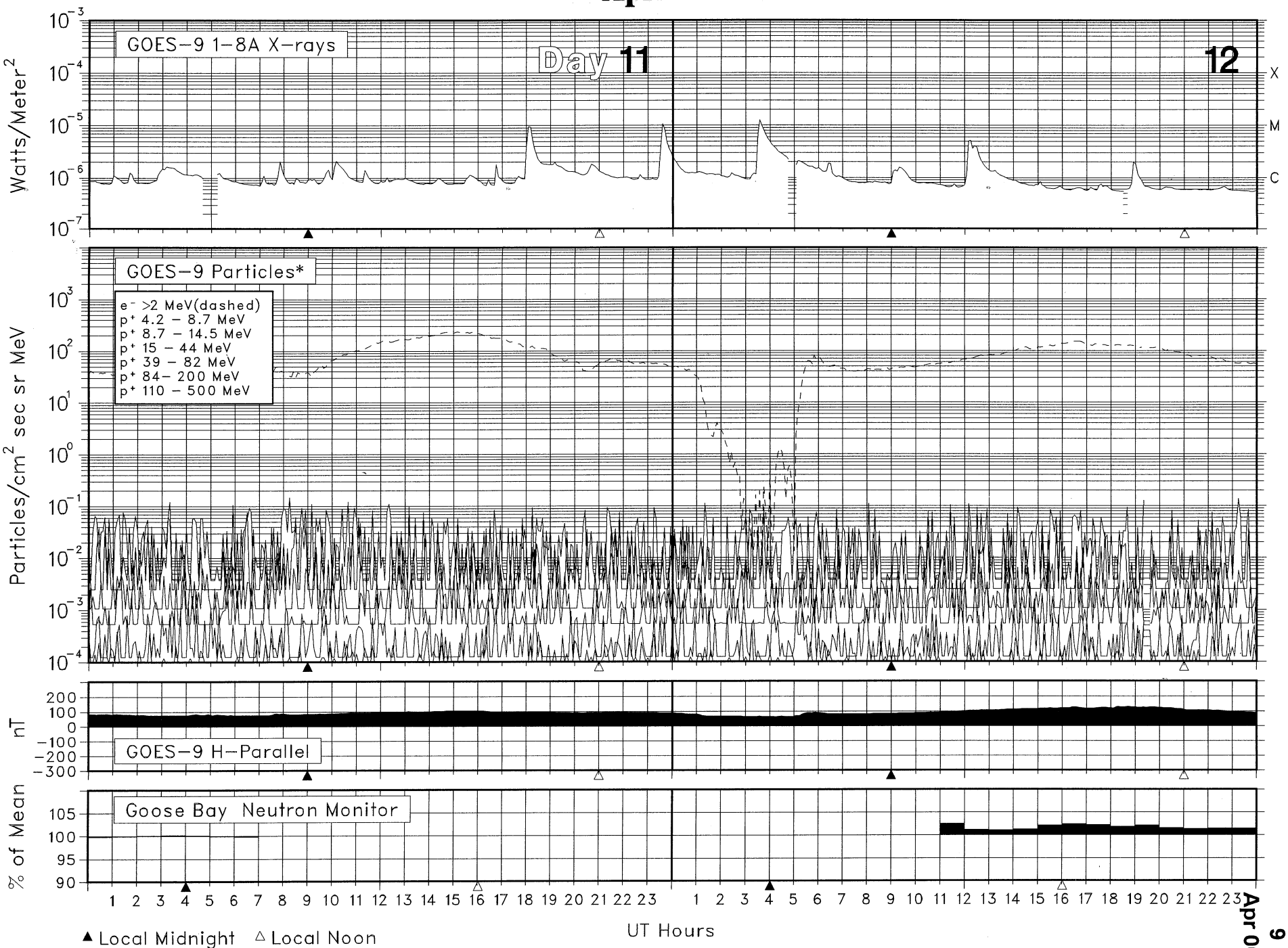

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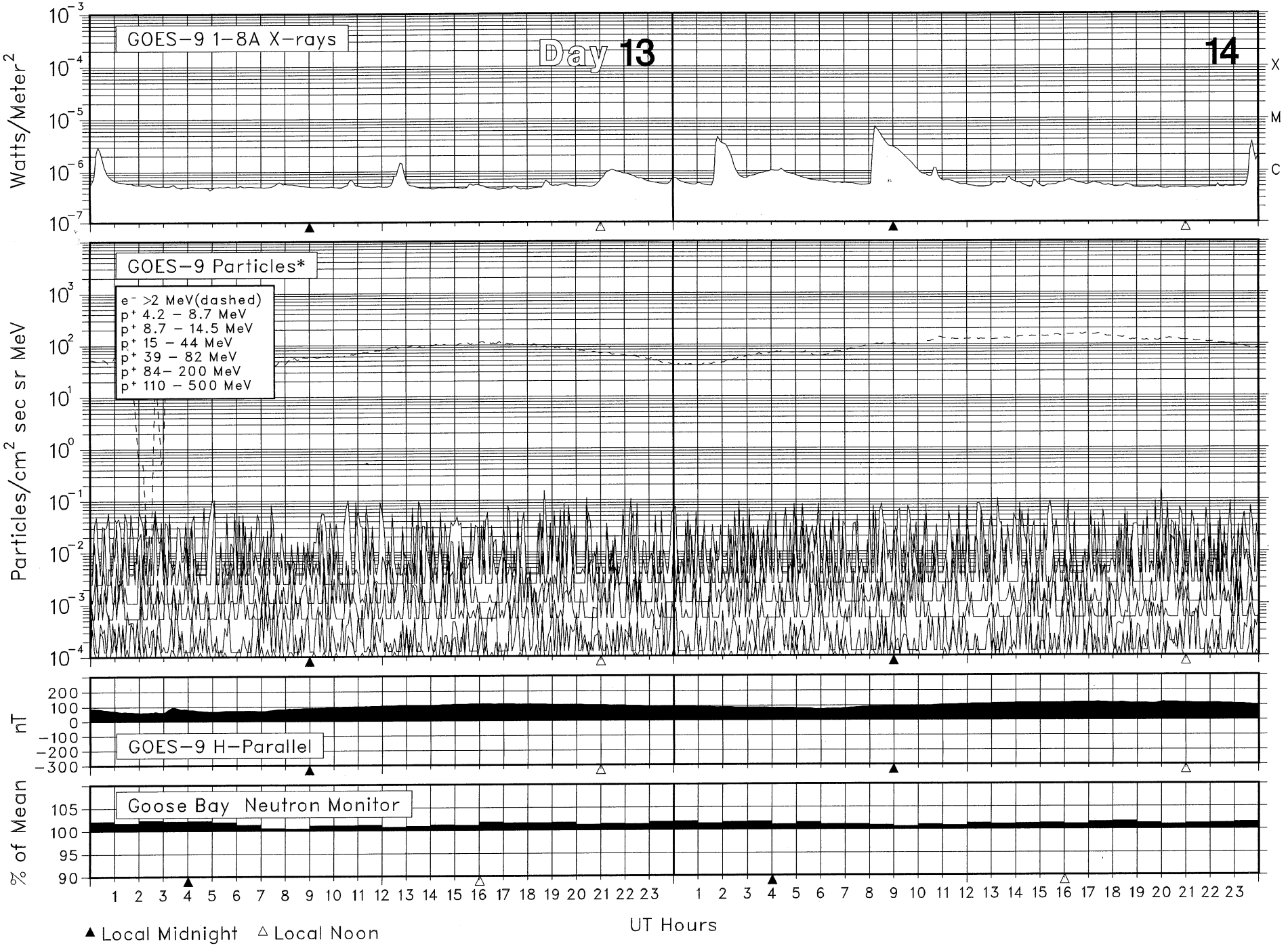

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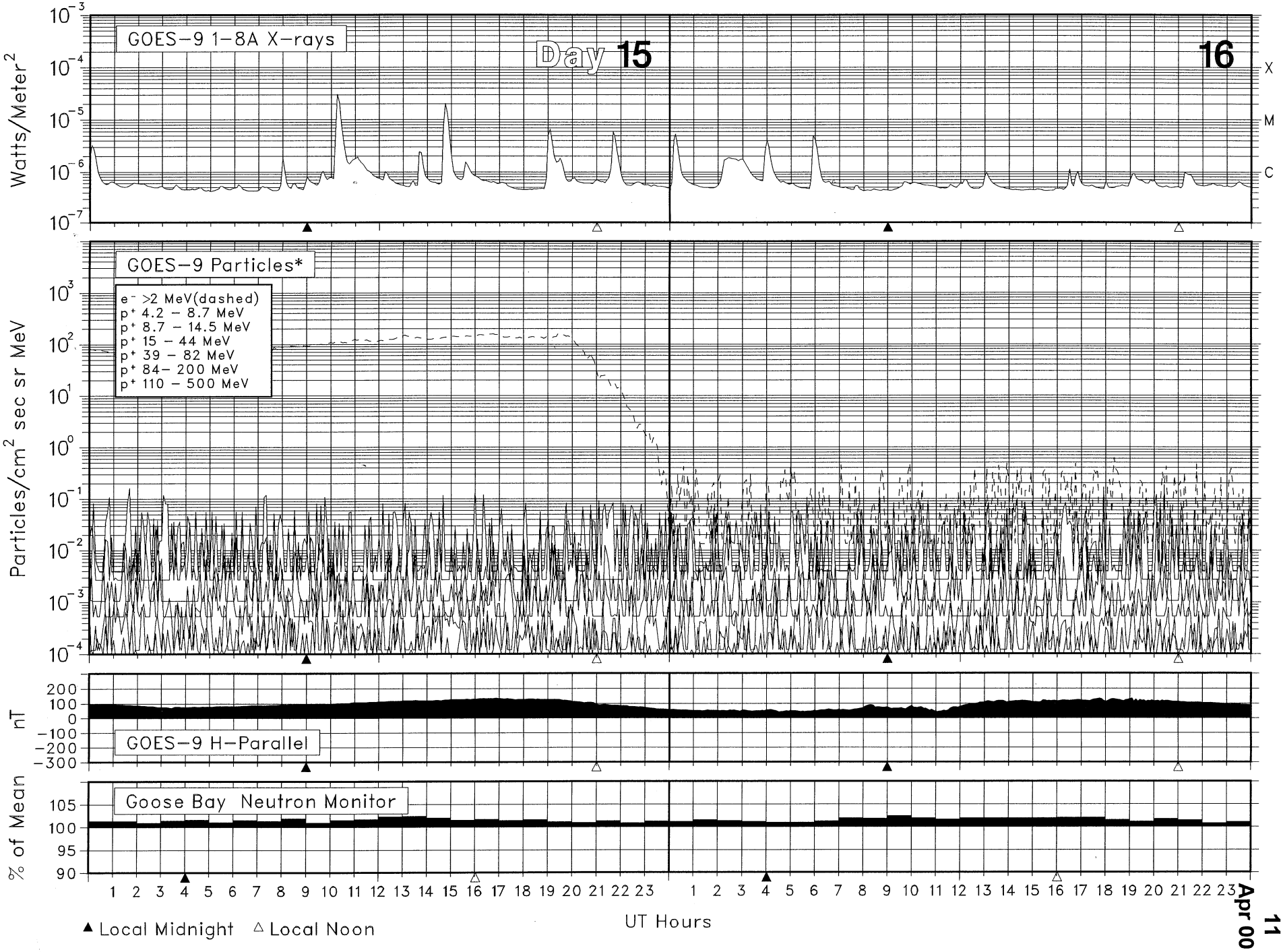

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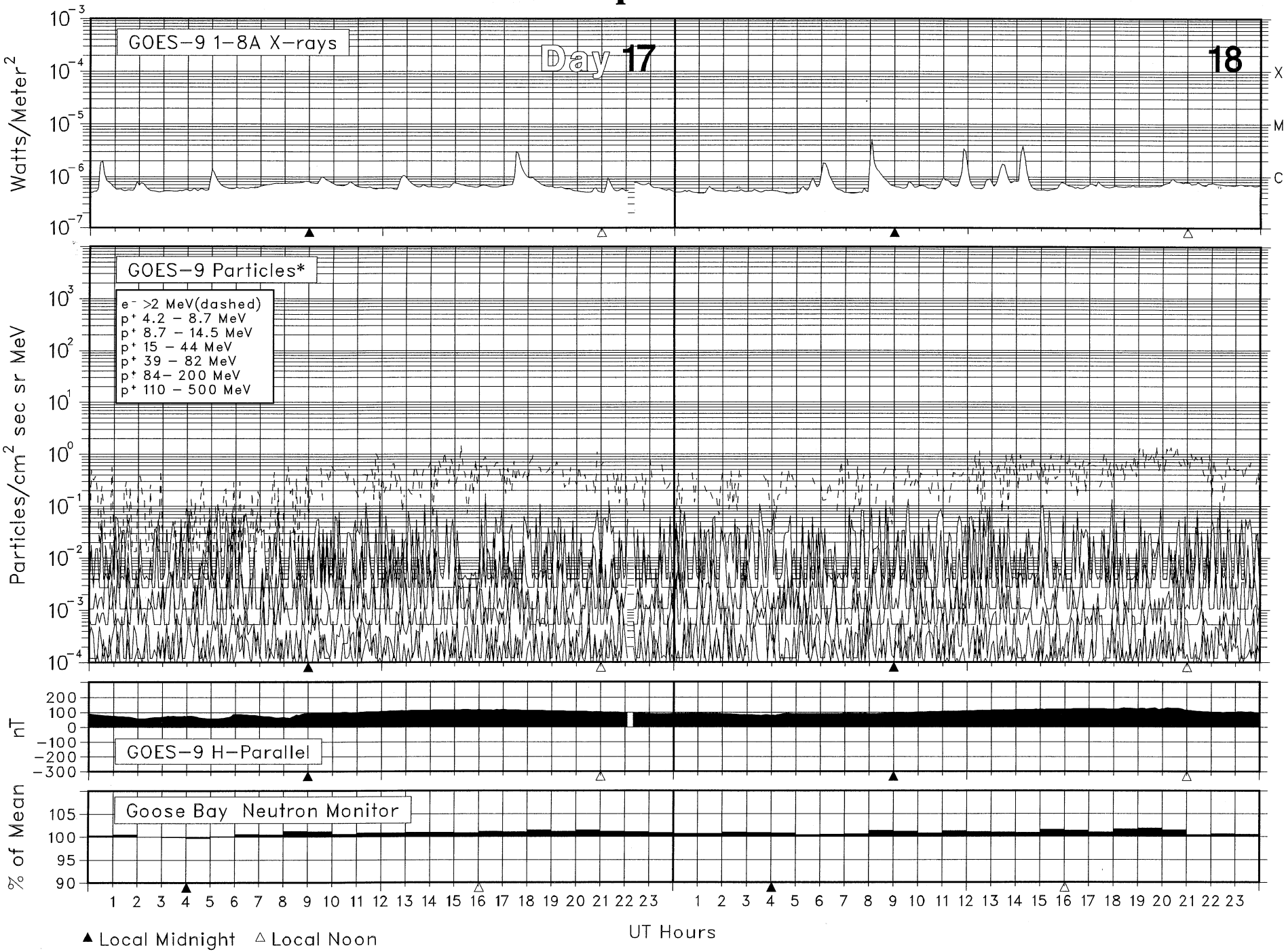

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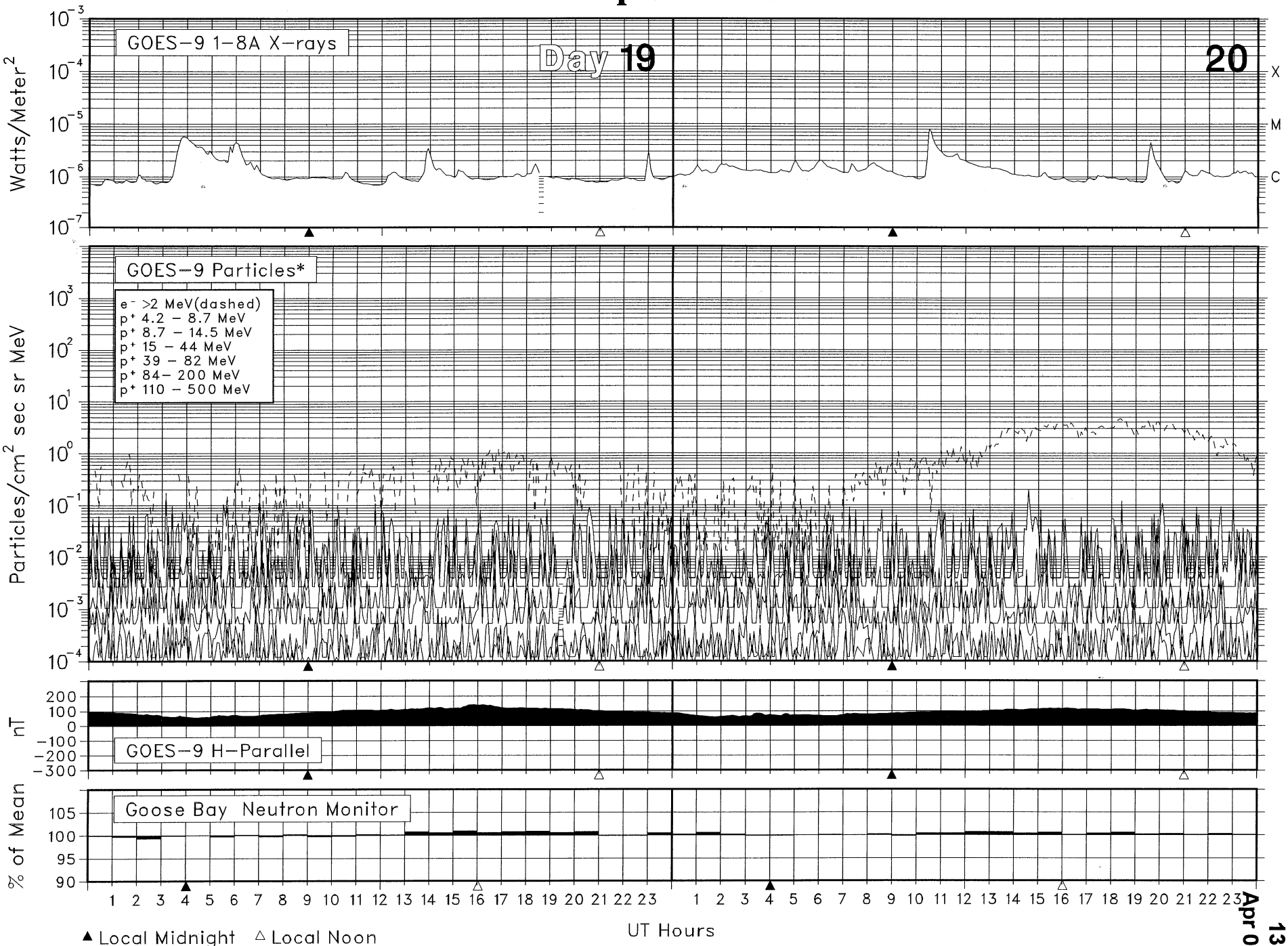

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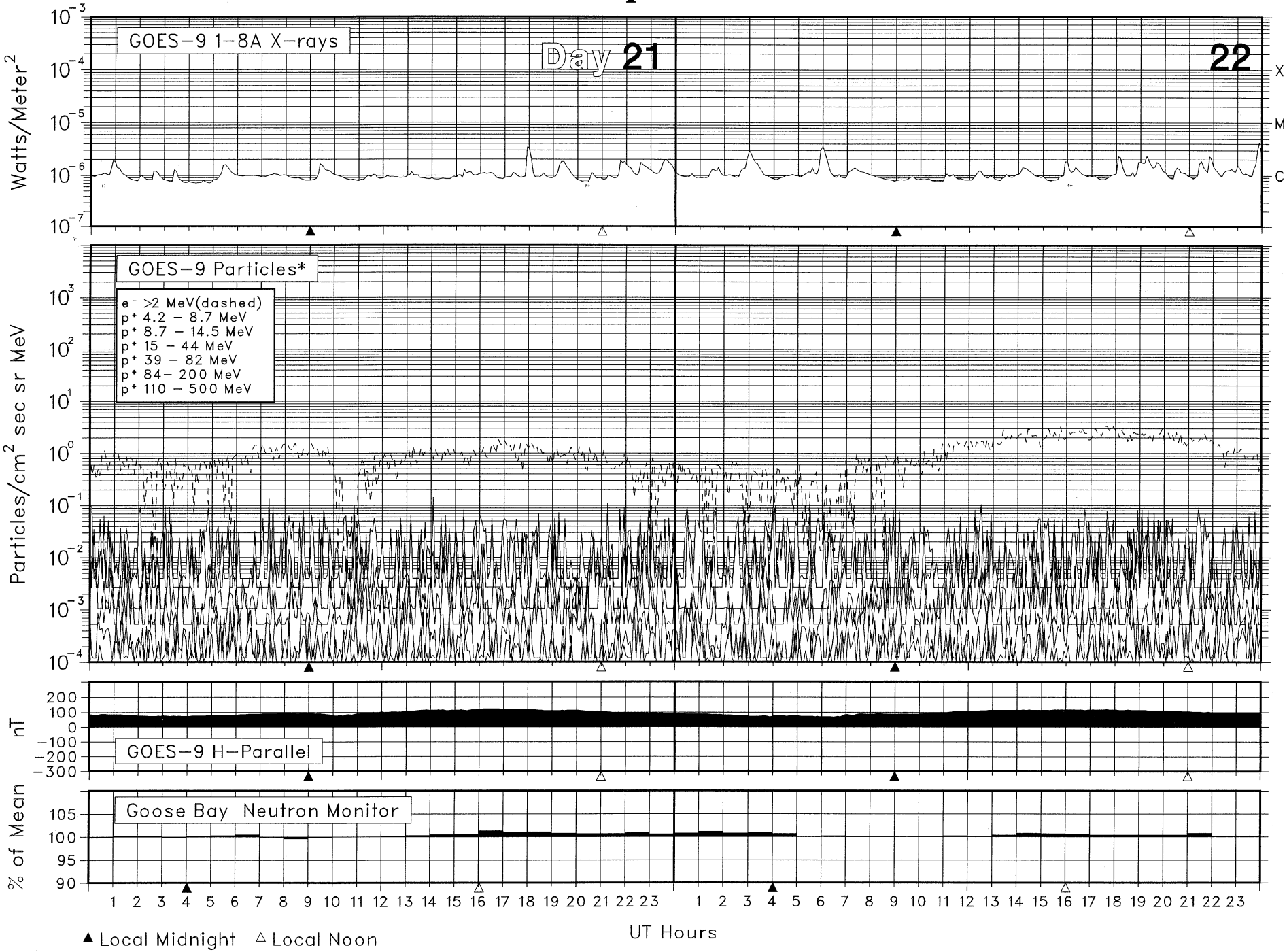

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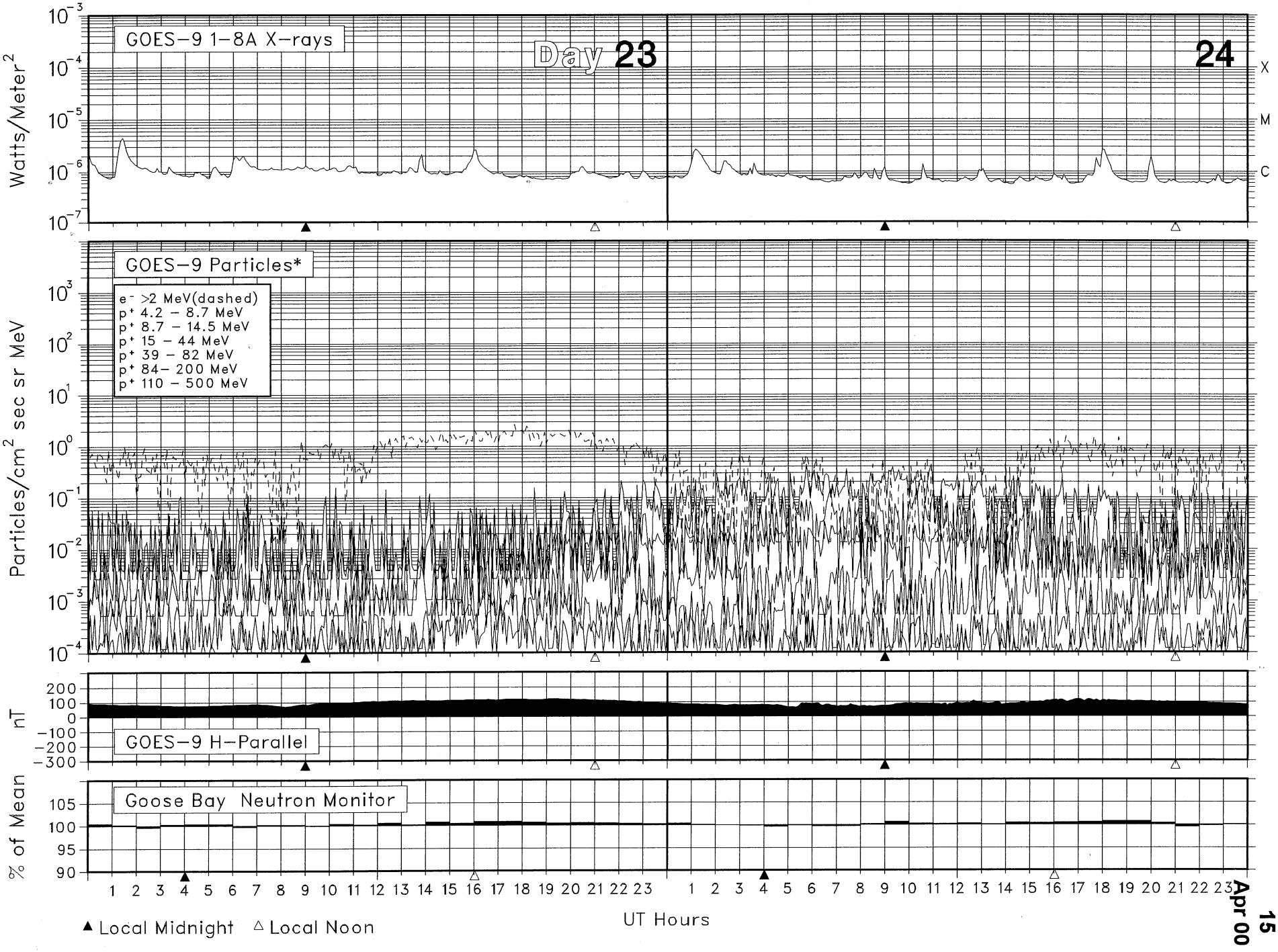

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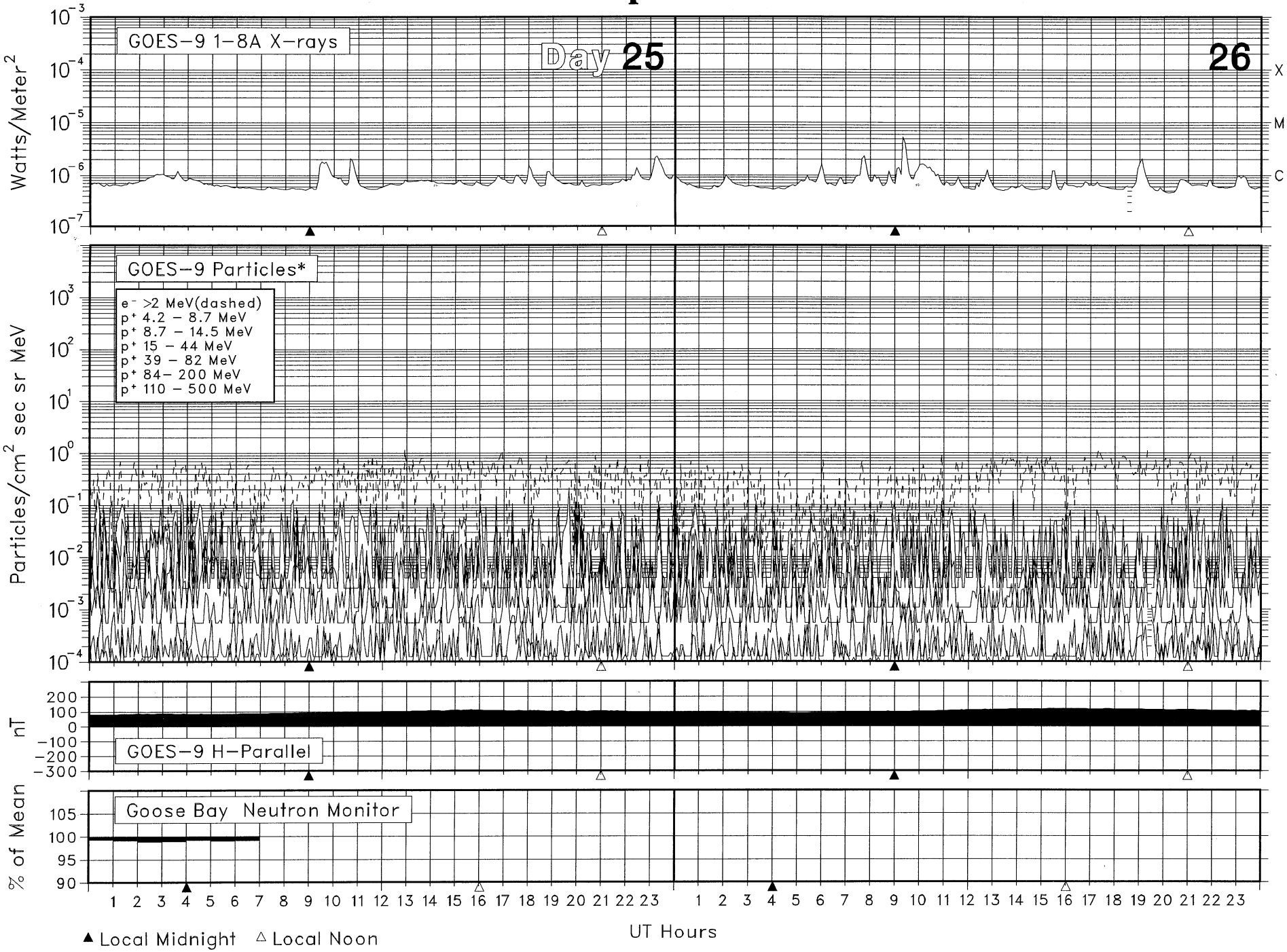
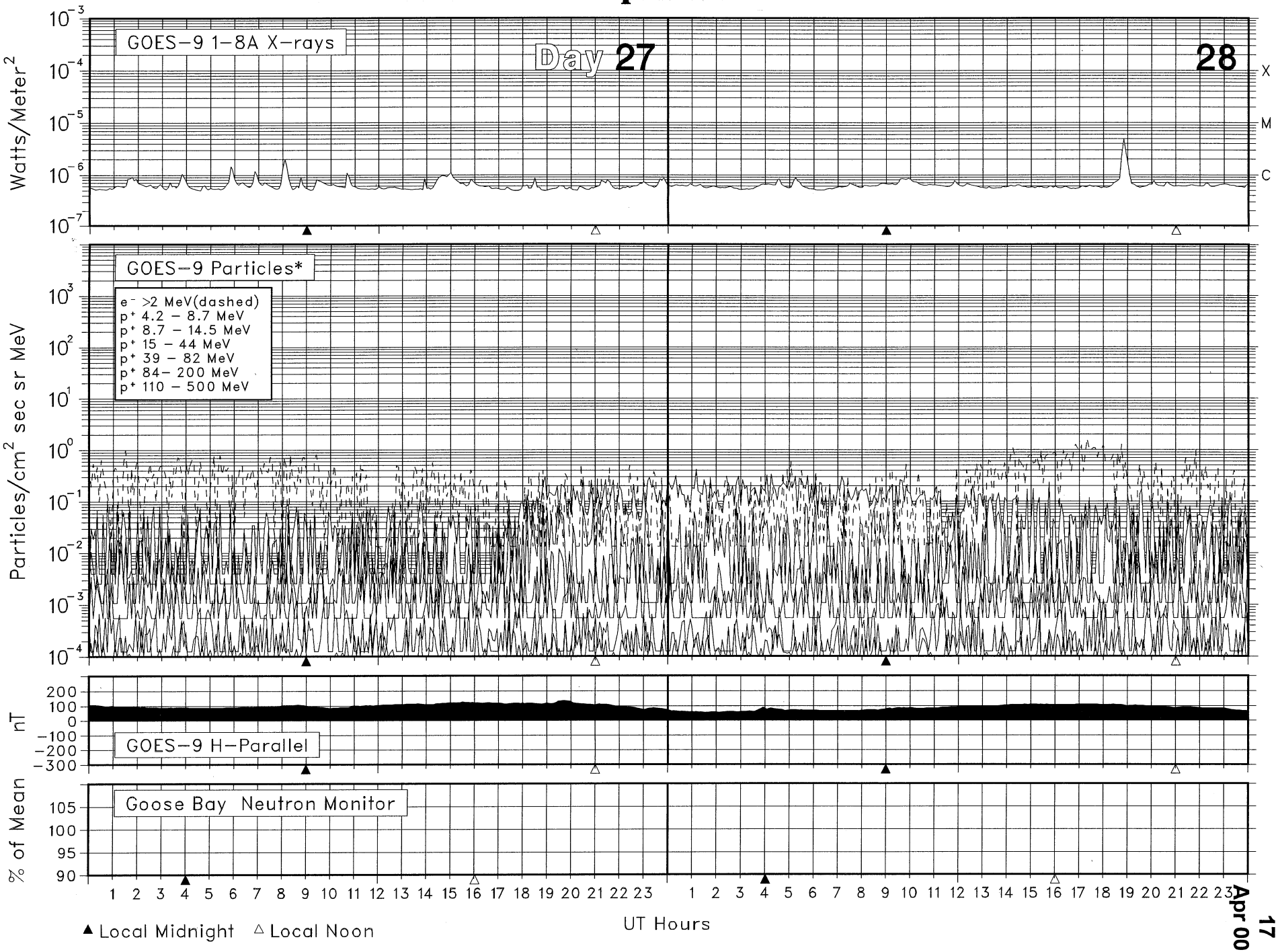


SOLAR-TERRESTRIAL ENVIRONMENT
April 2000



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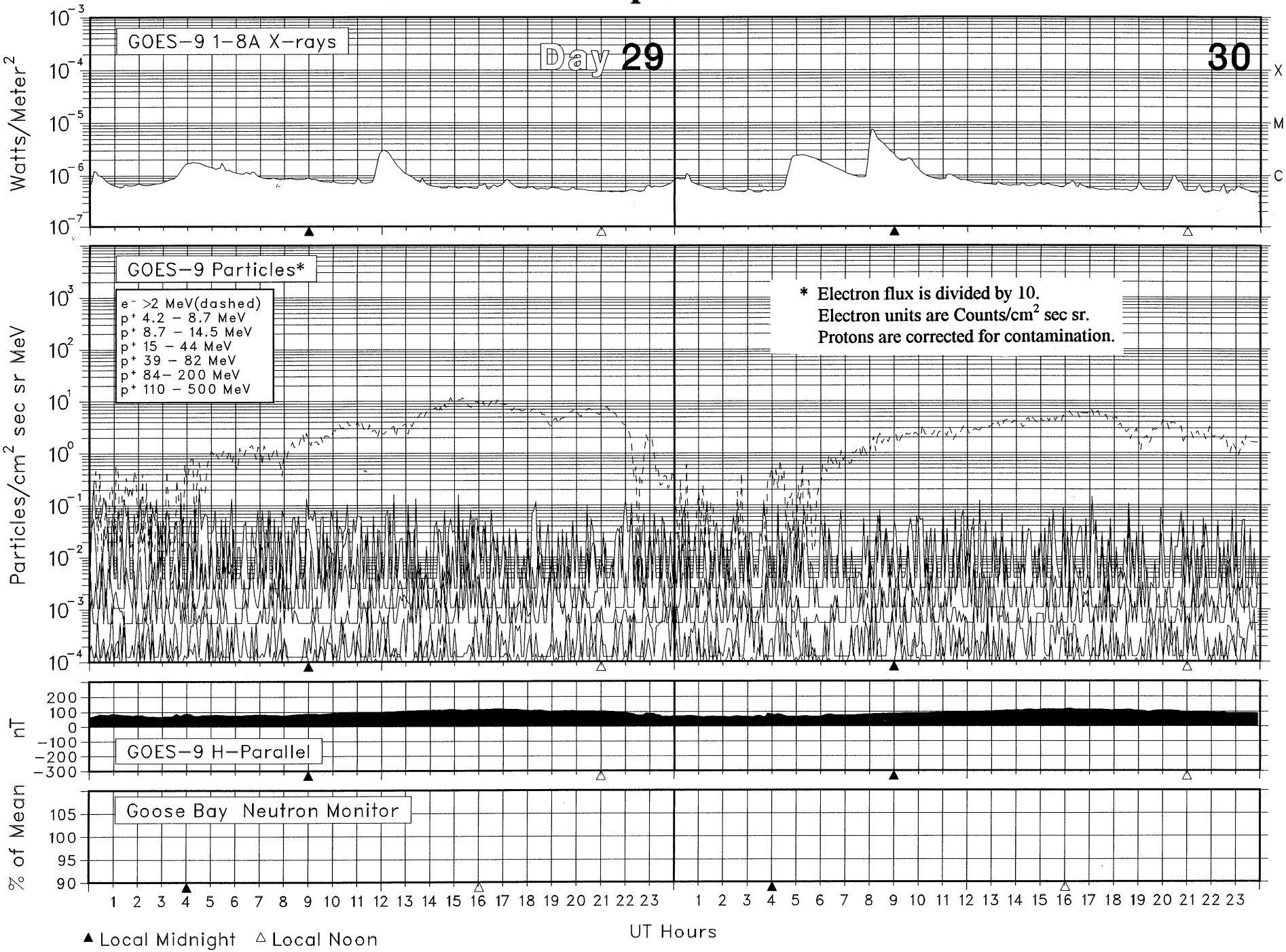

A L E R T P E R I O D S
The International Space Environment Service

APRIL 2000

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
092	01	31	248	225	20	8924	N10	W42	0	0	0	01	Q	SOL: Active
						8925	S18	W33	2	1	0	01	E	MAG: Quiet
						8928	N19	W39	0	0	0	01	Q	PRO: Quiet
						8931	S14	W20	0	0	0	01	Q	
						8932	S14	E07	0	0	0	01	Q	
						8933	N15	W17	1	0	0	01	Q	
						8935	S08	E06	0	0	0	01	Q	
						8936	S15	E47	10	1	0	01	E	
						8938	S07	E42	0	0	0	01	Q	
						8939	N22	E55	8	4	0	01	E	
						8940	N14	E50	0	0	0	01	Q	
						8942	S12	E20	0	0	0	01	Q	
						8943	N23	E20	0	0	0	01	Q	
093	02	01	287	223	12	8924	N10	W55	3	0	0	02	Q	SOL: Active
						8925	S18	W44	2	0	0	02	E	MAG: Quiet
						8928	N20	W52	0	0	0	02	Q	PRO: Quiet
						8929	S22	W38	0	0	0	02	Q	
						8931	S13	W33	0	0	0	02	Q	
						8932	S13	W06	0	0	0	02	Q	
						8933	N16	W30	1	0	0	02	Q	
						8935	S07	W07	0	0	0	02	Q	
						8936	S15	E33	5	0	0	02	E	
						8938	S06	E30	0	0	0	02	Q	
						8939	N23	E43	5	0	0	02	E	
						8940	N14	E38	0	0	0	02	Q	
						8942	S12	E06	0	0	0	02	Q	
						8943	N23	E07	0	0	0	02	Q	
						8944	N08	E70	0	0	0	02	Q	
						8945	S17	E72	4	0	0	02	Q	
094	03	02	301	219	14	8924	N11	W69	0	0	0	03	Q	SOL: Active
						8925	S18	W56	1	0	0	03	E	MAG: Quiet
						8928	N21	W64	0	0	0	03	Q	PRO: Quiet
						8931	S14	W46	0	0	0	03	Q	
						8932	S12	W19	0	0	0	03	Q	
						8933	N17	W44	6	0	0	03	Q	
						8935	S07	W20	1	0	0	03	Q	
						8936	S15	E21	4	0	0	03	E	
						8938	S04	E17	0	0	0	03	Q	
						8939	N23	E29	8	0	0	03	E	
						8940	N14	E25	0	0	0	03	Q	
						8942	S12	W08	0	0	0	03	Q	
						8943	N23	W06	0	0	0	03	Q	
						8944	N09	E58	0	0	0	03	Q	
						8945	S17	E59	0	0	0	03	Q	
095	04	03	252	215	12	8924	N12	W82	0	0	0	04	Q	SOL: Active
						8925	S19	W70	0	0	0	04	E	MAG: Quiet
						8931	S13	W60	0	0	0	04	Q	PRO: Quiet
						8932	S12	W32	0	0	0	04	Q	
						8933	N18	W58	4	0	0	04	E	
						8935	S07	W34	0	0	0	04	Q	
						8936	S14	E06	2	0	0	04	E	
						8939	N24	E14	0	0	0	04	E	
						8940	N14	E12	0	0	0	04	Q	
						8942	S10	W25	0	0	0	04	Q	
						8943	N23	W20	1	0	0	04	Q	
						8944	N09	E44	0	0	0	04	Q	
						8945	S18	E46	0	0	0	04	Q	
						8946	S24	W10	0	0	0	04	Q	
						8947	N23	E02	0	0	0	04	Q	
096	05	04	184	207	23	8931	S14	W72	0	0	0	05	Q	SOL: Eruptive
						8932	S13	W46	1	0	0	05	Q	MAG: Quiet
						8933	N17	W70	2	0	0	05	E	PRO: IP
						8935	S07	W48	1	0	0	05	Q	

A L E R T P E R I O D S
The International Space Environment Service

APRIL 2000

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8936	S16	W07	1	0	0	05	E	
						8939	N23	E01	0	0	0	05	E	
						8940	N13	E00	0	0	0	05	Q	
						8942	S10	W38	0	0	0	05	Q	
						8943	N22	W32	0	0	0	05	Q	
						8944	N11	E31	0	0	0	05	Q	
						8945	S18	E33	0	0	0	05	Q	
						8948	S15	E70	0	1	0	05	E	
097	06	05	221	194	10	8931	S14	W86	0	0	0	06	Q	SOL: Eruptive
						8932	S12	W61	1	0	0	06	Q	MAG: Quiet
						8933	N18	W84	6	0	0	06	E	PRO: IP
						8935	S06	W63	1	0	0	06	Q	
						8936	S15	W21	1	0	0	06	E	
						8939	N23	W12	3	0	0	06	Q	
						8940	N12	W12	0	0	0	06	Q	
						8942	S10	W53	0	0	0	06	Q	
						8943	N22	W47	0	0	0	06	Q	
						8944	N08	E18	0	0	0	06	Q	
						8945	S19	E20	0	0	0	06	Q	
						8948	S15	E56	3	0	0	06	E	
						8949	S18	E76	0	0	0	06	Q	
						8950	N18	W64	0	0	0	06	Q	
098	07	06	155	178	34	8932	S12	W74	0	0	0	07	Q	SOL: Eruptive
						8935	S06	W76	0	0	0	07	Q	MAG: Major
						8936	S15	W34	1	0	0	07	E	PRO: Quiet
						8939	N22	W26	1	0	0	07	Q	
						8940	N15	W30	1	0	0	07	Q	
						8943	N19	W63	0	0	0	07	Q	
						8944	N08	E04	0	0	0	07	Q	
						8945	S20	E07	0	0	0	07	Q	
						8948	S15	E42	2	1	0	07	E	
						8949	S19	E68	0	0	0	07	Q	
						8950	N18	W86	0	0	0	07	Q	
099	08	07	172	175	50	8932	S12	W87	0	0	0	08	Q	SOL: Eruptive
						8936	S15	W47	0	0	0	08	E	MAG: Active
						8938	S08	W47	0	0	0	08	Q	PRO: Quiet
						8939	N23	W39	0	0	0	08	Q	
						8943	N23	W75	0	0	0	08	Q	
						8944	N07	W08	1	0	0	08	Q	
						8945	S20	W04	0	0	0	08	Q	
						8948	S14	E28	4	0	0	08	E	
						8949	S18	E56	0	0	0	08	Q	
						8951	N11	E74	0	0	0	08	E	
						8952	S24	E49	0	0	0	08	Q	
100	09	08	167	182	13	8936	S16	W61	0	0	0	09	Q	SOL: Eruptive
						8938	S10	W61	0	0	0	09	Q	MAG: Active
						8939	N22	W53	0	0	0	09	Q	PRO: Quiet
						8943	N22	W87	0	0	0	09	Q	
						8944	N07	W21	0	0	0	09	Q	
						8945	S20	W15	0	0	0	09	Q	
						8948	S15	E14	14	2	0	09	E	
						8949	S19	E43	0	0	0	09	Q	
						8951	N13	E64	2	0	0	09	Q	
						8952	S23	E36	0	0	0	09	Q	
101	10	09	160	176	12	8936	S15	W74	0	0	0	10	Q	SOL: Active
						8939	N23	W66	1	0	0	10	Q	MAG: Quiet
						8944	N08	W35	0	0	0	10	Q	PRO: Quiet
						8945	S23	W29	0	0	0	10	Q	
						8948	S15	E01	7	2	0	10	E	
						8949	S20	E27	0	0	0	10	Q	
						8951	N12	E53	0	0	0	10	Q	
						8952	S23	E22	0	0	0	10	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8953	S14	E72	0	0	0	10	Q	
102	11	10	175	178	19	8936	S16	W88	0	0	0	11	Q	SOL: Active
						8939	N23	W82	0	0	0	11	Q	MAG: Quiet
						8948	S15	W12	4	0	0	11	E	PRO: Quiet
						8949	S19	E13	0	0	0	11	Q	
						8951	N11	E39	0	0	0	11	Q	
						8953	S17	E56	0	0	0	11	Q	
						8954	N31	E66	0	0	0	11	Q	
						8955	S22	E77	0	0	0	11	Q	
						8956	N11	E52	0	0	0	11	Q	
						8957	S12	W14	0	0	0	11	Q	
103	12	11	148	182	10	8948	S15	W25	8	2	0	12	E	SOL: Active
						8949	S19	W05	0	0	0	12	Q	MAG: Active
						8951	N11	E24	0	0	0	12	Q	PRO: Quiet
						8953	S17	E41	0	0	0	12	Q	
						8954	N30	E53	1	0	0	12	Q	
						8955	S22	E71	2	0	0	12	Q	
						8956	N11	E40	0	0	0	12	Q	
						8957	S12	W27	0	0	0	12	Q	
						8958	N17	E66	1	0	0	12	Q	
104	13	12	172	173	7	8948	S16	W37	7	1	0	13	E	SOL: Active
						8949	S19	W14	0	0	0	13	Q	MAG: Quiet
						8951	N11	E11	2	0	0	13	Q	PRO: Quiet
						8953	S16	E31	0	0	0	13	Q	
						8954	N31	E40	0	0	0	13	Q	
						8955	S22	E57	0	0	0	13	Q	
						8956	N14	E24	0	0	0	13	Q	
						8958	N17	E53	0	0	0	13	Q	
						8959	S19	E29	0	0	0	13	Q	
105	14	13	190	164	3	8948	S15	W49	1	0	0	14	E	SOL: Eruptive
						8949	S19	W27	0	0	0	14	Q	MAG: Quiet
						8951	N12	W03	0	0	0	14	Q	PRO: Quiet
						8953	S15	E20	0	0	0	14	Q	
						8954	N30	E29	0	0	0	14	Q	
						8955	S22	E46	2	0	0	14	Q	
						8956	N13	E11	0	0	0	14	Q	
						8958	N16	E42	0	0	0	14	Q	
						8959	S17	E14	0	0	0	14	Q	
						8960	N19	W15	0	0	0	14	Q	
						8961	S25	E07	0	0	0	14	Q	
						8962	N21	E76	0	0	0	14	Q	
						8963	N15	E74	0	0	0	14	Q	
106	15	14	173	165	4	8948	S15	W63	2	0	0	15	E	SOL: Eruptive
						8949	S19	W40	0	0	0	15	Q	MAG: Quiet
						8951	N12	W18	0	0	0	15	Q	PRO: Quiet
						8953	S14	E07	0	0	0	15	Q	
						8954	N31	E14	0	0	0	15	Q	
						8955	S22	E33	1	0	0	15	Q	
						8956	N14	W03	0	0	0	15	Q	
						8958	N17	E30	0	0	0	15	Q	
						8959	S18	E03	0	0	0	15	Q	
						8960	N19	W31	2	0	0	15	Q	
						8962	N22	E62	0	0	0	15	Q	
						8963	N16	E62	0	0	0	15	Q	
107	16	15	177	164	6	8948	S16	W76	1	0	0	16	Q	SOL: Eruptive
						8949	S19	W52	0	0	0	16	Q	MAG: Quiet
						8951	N12	W31	0	0	0	16	Q	PRO: Quiet
						8953	S16	W06	0	0	0	16	Q	
						8954	N32	W01	0	0	0	16	Q	
						8955	S22	E20	8	2	0	16	E	
						8956	N12	W16	0	0	0	16	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
						8959	S17	W13	0	0	0	16	Q	
						8960	N19	W43	1	0	0	16	Q	
						8962	N22	E49	0	0	0	16	Q	
						8963	N16	E49	0	0	0	16	Q	
108	17	16	170	159	20	8949	S19	W65	0	0	0	17	Q	SOL: Active
						8951	N11	W44	0	0	0	17	Q	MAG: Active
						8953	S14	W20	0	0	0	17	Q	PRO: Quiet
						8955	S21	E07	5	0	0	17	E	
						8956	N13	W31	0	0	0	17	Q	
						8959	S17	W25	1	0	0	17	Q	
						8960	N20	W57	0	0	0	17	Q	
						8962	N23	E36	0	0	0	17	Q	
						8963	N16	E36	0	0	0	17	Q	
						8964	N34	E21	1	0	0	17	Q	
109	18	17	166	158	12	8949	S20	W79	0	0	0	18	Q	SOL: Eruptive
						8951	N12	W57	0	0	0	18	Q	MAG: Active
						8953	S13	W34	0	0	0	18	Q	PRO: Quiet
						8955	S22	W06	2	0	0	18	E	
						8958	N18	W12	0	0	0	18	Q	
						8959	S17	W34	0	0	0	18	Q	
						8960	N19	W74	0	0	0	18	Q	
						8961	S27	W47	0	0	0	18	Q	
						8962	N24	E24	0	0	0	18	Q	
						8963	N16	E22	0	0	0	18	Q	
						8964	N34	E08	0	0	0	18	Q	
						8965	S16	E66	0	0	0	18	Q	
110	19	18	156	160	5	8949	S17	W91	0	0	0	19	Q	SOL: Eruptive
						8951	N12	W71	0	0	0	19	Q	MAG: Quiet
						8953	S13	W47	0	0	0	19	Q	PRO: Quiet
						8955	S22	W19	2	0	0	19	E	
						8959	S16	W48	0	0	0	19	Q	
						8960	N20	W86	0	0	0	19	Q	
						8962	N23	E11	0	0	0	19	Q	
						8963	N16	E09	3	0	0	19	E	
						8964	N34	W04	0	0	0	19	Q	
						8965	S16	E53	0	0	0	19	Q	
						8966	S13	E65	0	0	0	19	Q	
111	20	19	179	168	12	8951	N12	W84	0	0	0	20	Q	SOL: Eruptive
						8953	S12	W61	0	0	0	20	Q	MAG: Quiet
						8955	S21	W32	0	0	0	20	Q	PRO: Quiet
						8958	N19	W39	1	0	0	20	Q	
						8959	S15	W63	3	0	0	20	Q	
						8962	N23	W01	0	0	0	20	Q	
						8963	N15	W04	5	0	0	20	E	
						8964	N34	W17	0	0	0	20	Q	
						8965	S17	E39	0	0	0	20	Q	
						8966	S13	E52	0	0	0	20	Q	
						8967	N22	E65	2	0	0	20	Q	
						8968	S13	E28	0	0	0	20	Q	
112	21	20	179	181	17	8955	S21	W46	1	0	0	21	Q	SOL: Eruptive
						8958	N19	W53	1	0	0	21	Q	MAG: Quiet
						8959	S16	W78	2	0	0	21	Q	PRO: Quiet
						8962	N23	W15	0	0	0	21	Q	
						8963	N16	W18	2	0	0	21	Q	
						8964	N34	W31	0	0	0	21	Q	
						8965	S17	E26	0	0	0	21	Q	
						8966	S13	E38	1	0	0	21	Q	
						8967	N21	E49	2	0	0	21	Q	
						8968	S13	E14	0	0	0	21	Q	
						8969	N13	E62	1	0	0	21	Q	
						8970	S14	E77	0	0	0	21	Q	

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Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
113	22	21	211	187	9	8955	S21	W58	2	0	0	22	E	SOL: Eruptive
						8958	N18	W66	0	0	0	22	Q	MAG: Quiet
						8959	S15	W92	0	0	0	22	Q	PRO: Quiet
						8962	N23	W27	0	0	0	22	Q	
						8963	N16	W31	6	0	0	22	E	
						8964	N35	W44	0	0	0	22	Q	
						8965	S19	E17	0	0	0	22	Q	
						8966	S13	E25	0	0	0	22	Q	
						8967	N22	E36	1	0	0	22	Q	
						8968	S12	E01	0	0	0	22	Q	
						8969	N12	E47	0	0	0	22	Q	
						8970	S15	E68	0	0	0	22	Q	
						8971	N18	E67	0	0	0	22	Q	
						8972	N32	E03	0	0	0	22	Q	
114	23	22	226	202	5	8955	S21	W71	0	0	0	23	Q	SOL: Eruptive
						8958	N18	W81	0	0	0	23	Q	MAG: Quiet
						8962	N24	W40	0	0	0	23	Q	PRO: Quiet
						8963	N17	W44	3	0	0	23	E	
						8965	S16	E00	0	0	0	23	Q	
						8966	S14	E10	1	0	0	23	Q	
						8967	N22	E23	0	0	0	23	Q	
						8968	S13	W12	0	0	0	23	Q	
						8969	N11	E34	0	0	0	23	Q	
						8970	S15	E56	6	0	0	23	E	
						8971	N17	E54	1	0	0	23	E	
						8972	N33	W10	7	0	0	23	Q	
						8973	N20	W12	0	0	0	23	Q	
115	24	23	252	206	7	8955	S20	W84	0	0	0	24	Q	SOL: Eruptive
						8962	N24	W53	0	0	0	24	Q	MAG: Quiet
						8963	N17	W57	0	0	0	24	Q	PRO: Quiet
						8965	S16	W13	0	0	0	24	Q	
						8966	S13	W01	0	0	0	24	Q	
						8967	N22	E09	3	0	0	24	Q	
						8968	S13	W26	0	0	0	24	Q	
						8969	N12	E20	0	0	0	24	Q	
						8970	S15	E43	1	0	0	24	E	
						8971	N18	E41	7	0	0	24	E	
						8972	N34	W21	1	0	0	24	Q	
						8973	N20	W26	0	0	0	24	Q	
						8974	S21	W36	0	0	0	24	Q	
						8975	S25	E50	0	0	0	24	Q	
116	25	24	222	206	16	8962	N24	W65	2	0	0	25	Q	SOL: Active
						8963	N17	W70	2	0	0	25	Q	MAG: Quiet
						8965	S16	W27	0	0	0	25	Q	PRO: Quiet
						8966	S12	W15	0	0	0	25	Q	
						8967	N22	W04	3	0	0	25	Q	
						8968	S13	W39	0	0	0	25	Q	
						8969	N12	E07	0	0	0	25	Q	
						8970	S15	E30	0	0	0	25	E	
						8971	N18	E28	5	0	0	25	E	
						8972	N34	W34	12	0	0	25	E	
						8973	N21	W39	0	0	0	25	Q	
						8974	S21	W50	0	0	0	25	Q	
117	26	25	229	203	6	8962	N25	W78	0	0	0	26	Q	SOL: Eruptive
						8965	S16	W39	0	0	0	26	Q	MAG: Quiet
						8966	S12	W29	0	0	0	26	Q	PRO: Quiet
						8967	N23	W16	5	0	0	26	E	
						8968	S13	W52	0	0	0	26	Q	
						8969	N12	W06	0	0	0	26	Q	
						8970	S15	E18	1	0	0	26	E	
						8971	N18	E16	2	0	0	26	E	
						8972	N34	W47	5	0	0	26	E	
						8973	N22	W52	0	0	0	26	Q	

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						8974	S12	W63	0	0	0	26	Q	
118	27	26	197	190	3	8965	S16	W52	2	0	0	27	Q	SOL: Active
						8966	S13	W39	0	0	0	27	Q	MAG: Quiet
						8967	N23	W30	4	0	0	27	E	PRO: Quiet
						8968	S13	W66	1	0	0	27	Q	
						8969	N11	W20	0	0	0	27	Q	
						8970	S15	E04	5	0	0	27	E	
						8971	N18	E02	1	0	0	27	E	
						8972	N34	W60	0	0	0	27	E	
						8973	N22	W64	0	0	0	27	Q	
119	28	27	163	184	12	8965	S15	W63	3	0	0	28	Q	SOL: Eruptive
						8967	N23	W42	3	0	0	28	E	MAG: Quiet
						8968	S11	W79	0	0	0	28	Q	PRO: Quiet
						8969	N12	W40	0	0	0	28	Q	
						8970	S14	W10	7	0	0	28	E	
						8971	N18	W11	2	0	0	28	E	
						8972	N35	W72	0	0	0	28	E	
						8973	N22	W81	0	0	0	28	Q	
120	29	28	238	183	15	8965	S16	W76	0	0	0	29	Q	SOL: Eruptive
						8967	N24	W54	1	0	0	29	Q	MAG: Quiet
						8968	S11	W91	0	0	0	29	Q	PRO: Quiet
						8970	S13	W22	1	0	0	29	E	
						8971	N18	W22	0	0	0	29	E	
						8972	N36	W85	1	0	0	29	Q	
						8973	N22	W93	0	0	0	29	Q	
						8976	S11	E03	0	0	0	29	Q	
						8977	S14	W04	0	0	0	29	Q	
						8978	N19	E04	0	0	0	29	Q	
						8979	N21	E47	0	0	0	29	Q	
						8980	S16	E71	0	0	0	29	Q	
121	30	29	142	175	11	8965	S15	W89	0	0	0	30	Q	SOL: Eruptive
						8967	N23	W77	0	0	0	30	Q	MAG: Quiet
						8970	S15	W36	3	0	0	30	E	PRO: Quiet
						8971	N18	W36	1	0	0	30	E	
						8976	S11	W14	1	0	0	30	E	
						8977	S13	W20	0	0	0	30	Q	
						8978	N19	W10	0	0	0	30	Q	
						8980	S16	E58	0	0	0	30	Q	

(1) Region Forecast and Flare (SOL) Advice
- Q = Quiet (<50% probability of C-class flares)
- E = Eruptive (C-class flares expected, probability >=50%)
- A = Active (M-class flares expected, probability >=50%)
- M = Major (X-class flares expected, probability >=50%)
- P = Proton (Proton flares expected, probability >=50%)
- W = Warning (activity levels are expected to increase, but no numerical forecast given)
- / = No forecast available

Magnetic (MAG) Geoadvice

'Quiet'		
'Active'	conditions expected	(A>= 20 or K =4)
'Minor'	storm expected	(A>= 30 or K =5)
'Major'	storm expected	(A>= 50 or K>=6)
'Severe'	storm expected	(A>=100 or K>=7)
'IP'	magstorm in progress	(A>= 30 or K>=4)
'Warning'	(activity levels are expected to increase, but no numerical forecast given)	
'/'	no forecast available	

Proton (PRO) Geoadvice

'Quiet'		
'Proton'	event expected	(10pfu at > 10 MeV)
'Major'	proton event expected	(100pfu at >100 MeV)
'IP'	proton event in progress	(>10 MeV)
'Warning'	(activity levels are expected to increase, but no numerical forecast given)	
'/'	no forecast available	

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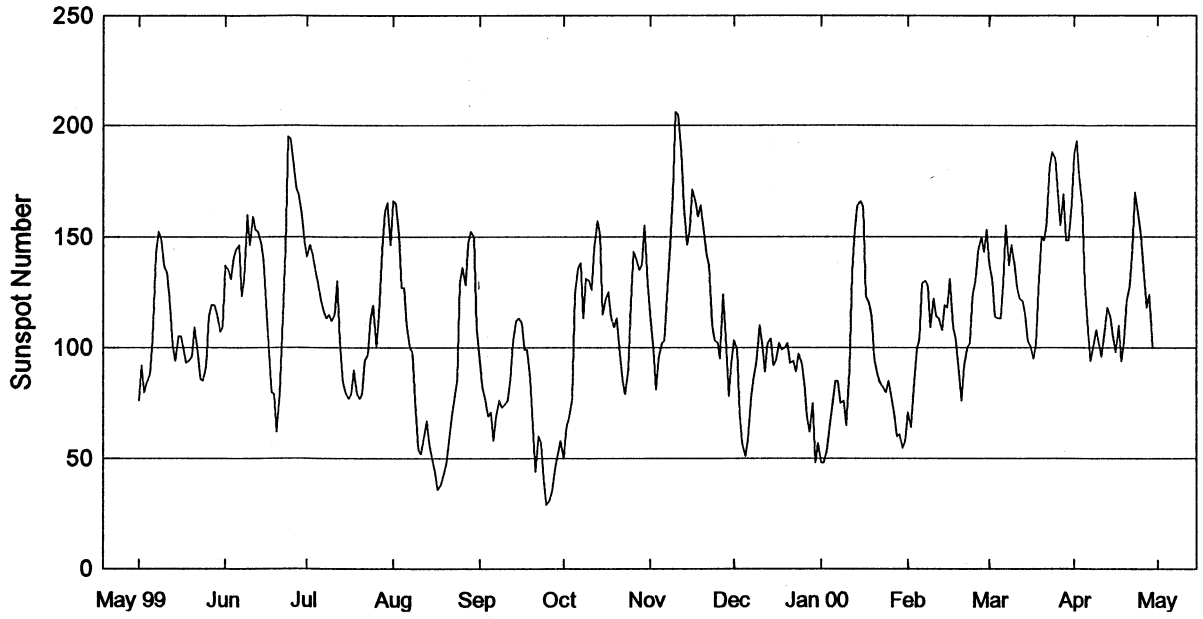
APRIL 2000

STRATWARM ALERTS

04/01/00 03:30:00 GEOALERT WWA092 STRATWARM ALERT EXISTS STRATWARM FRIDAY
FINAL WARMING SLOWLY PROGRESSES. THE WARM CENTER OVER NORTHERN SIBERIA/NORTHEASTERN EUROPE EXTENDS FURTHER POLEWARDS WHILE THE RESTS OF THE COLD AIR WILL BE SHIFTED TO MIDDLE LATITUDES. THE WEAKENING VORTEX MOVES FROM THE CANADIAN TO THE EUROPEAN ARCTIC AND AN ANTICYCLONE DEVELOPS OVER ALASKA AND THE ADJACENT ARCTIC. TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE IN THE MIDDLE AND UPPER STRATOSPHERE AND CIRCULATION REVERSAL EXPECTED AROUND MID-APRIL. LAST MESSAGE OF THIS WINTER SEASON.

International Relative Sunspot Numbers
May 1999 - Apr 2000

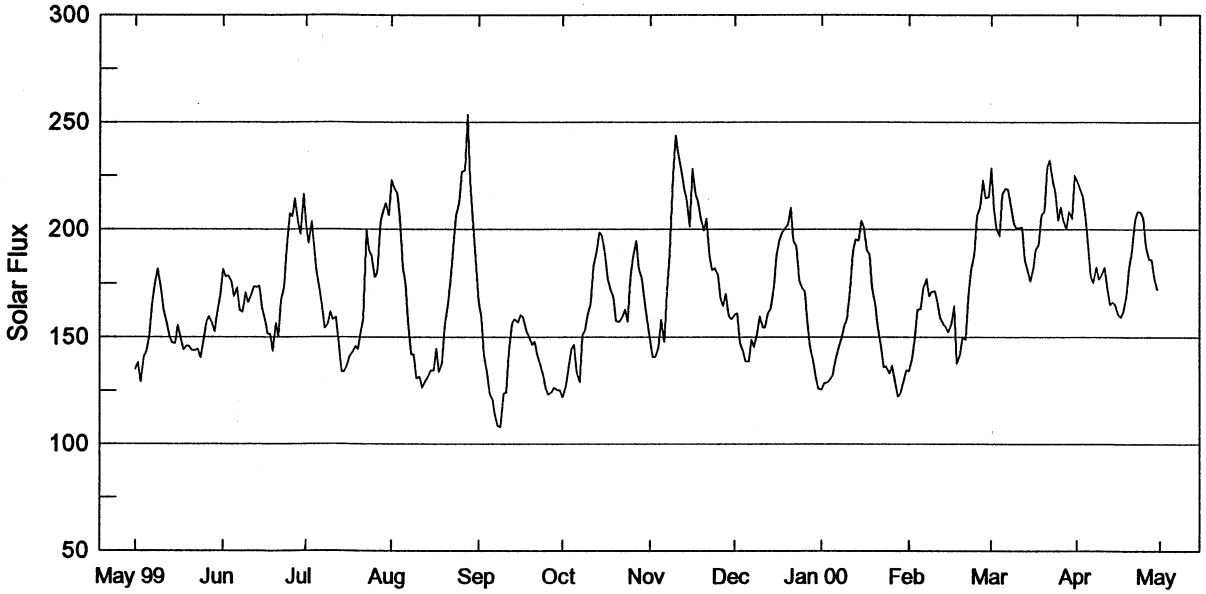


Day	May 99	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00*	Feb*	Mar*	Apr*
1	76	137	141	166	94	50	115	103	48	71	138	187
2	92	135	146	165	82	64	99	99	48	64	130	193
3	80	131	142	151	77	68	81	70	54	81	114	177
4	84	140	134	127	69	77	95	57	64	99	113	164
5	88	144	130	127	71	124	102	51	73	104	113	129
6	104	146	122	110	58	136	103	63	85	129	129	108
7	142	123	117	100	69	138	123	59	85	130	155	94
8	152	131	113	98	76	113	146	78	75	128	137	100
9	149	160	115	76	73	131	169	87	76	109	146	108
10	136	146	112	54	74	130	206	110	65	122	137	102
11	134	159	115	52	76	126	205	101	90	114	127	96
12	122	153	130	60	85	145	188	89	134	113	122	107
13	101	152	103	67	102	157	164	102	153	108	121	118
14	94	147	84	57	112	151	146	104	164	119	115	114
15	105	139	80	49	113	115	153	92	166	118	103	105
16	105	120	77	44	111	122	171	94	163	131	100	98
17	99	97	79	36	99	125	166	102	123	109	95	110
18	93	80	90	38	99	114	159	99	120	104	101	94
19	94	79	79	42	86	109	164	100	114	89	126	103
20	96	62	77	48	65	113	152	102	95	76	150	121
21	109	79	79	58	44	97	142	93	88	92	148	128
22	98	106	94	68	60	86	137	94	84	100	156	145
23	86	144	97	76	57	79	110	89	82	102	182	170
24	85	195	113	86	41	90	103	97	80	123	188	160
25	92	194	119	129	29	120	102	93	85	131	185	151
26	114	182	100	136	31	143	95	84	77	144	170	136
27	119	172	115	128	35	140	124	69	70	150	155	118
28	119	169	144	147	46	135	105	62	60	143	169	124
29	115	160	161	152	52	137	78	75	61	153	148	100
30	107	148	165	150	58	155	93	48	55		148	100
31	109		146	109		129		57	58		164	
Mean	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	90.2	112.3	138.2	125.3

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux
May 1999 - Apr 2000

Adjusted to 1 AU



Day	May 99	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar	Apr
1	134.9*	181.2	202.0	222.9	165.8	121.9	148.4	160.4	125.6	134.1	228.7	222.7
2	137.9	178.1	193.4	218.8	159.3	126.6	140.6	160.9	128.5	140.2	209.6	219.3
3	129.2	178.5	203.5	216.9	141.7	134.7	140.8	147.5	128.7	149.7	200.4	215.5
4	141.1	175.9	191.9	206.0	133.5	144.4	145.1	143.3	130.3	162.7	197.0	206.9
5	143.3	168.8	180.0	182.1	123.8	146.2	157.8	138.6	132.0	163.1	216.8	194.7
6	149.5	172.9	173.5	175.3	120.4	133.5	147.4	138.6	140.0	172.8	219.1	178.1
7	166.4	162.4	163.7	157.6	114.1	129.2	170.8	148.8	144.8	177.0	218.5	175.4
8	175.1	161.3	154.1	141.7	108.4	150.9	188.4	145.6	149.6	169.0	211.8	182.5
9	181.7	170.3	155.9	141.9	108.0	152.8	225.5	151.5	155.3	170.8#	203.0	176.9
10	172.8	166.0	161.5	130.8	123.7	160.0	243.6	159.5	157.8	171.1	200.7	178.6
11	162.6	169.8	157.8	131.4	124.1	166.0	235.0	154.3	171.8	165.8	200.6	182.4
12	156.3	173.2	159.2	126.4	142.6	182.9	227.1	154.4	189.3	159.1	200.8	173.9
13	150.5	173.0	148.3	129.8	156.5	190.1	219.1	161.0	195.4	155.9	186.0	165.0
14	147.3	173.5	133.9	131.5	158.2	198.7	214.2	163.1	194.7	154.7	180.6	166.3
15	146.8	163.5	133.8	134.5	156.6	197.1	201.1	173.1	203.9	152.2	175.9	164.9
16	155.6	157.6	136.4	134.4	159.9	187.8	228.2	187.9	201.0	156.3	182.5	160.2
17	148.6	151.3	141.3	144.5	159.1	176.8	216.3	194.4	190.1	164.4	190.6	159.2
18	143.8	151.2	142.8	133.9	153.0	171.4	212.9	198.9	188.4	137.8	193.0	161.8
19	145.8	143.3	145.8	138.0	150.6	168.2	205.1	200.3	172.9	141.5	206.5	169.2
20	145.9	156.5	144.1	155.2	146.2	157.4	199.5	202.4	165.3	149.9	208.7	182.4
21	143.7	150.3	152.1	165.0	147.9	157.0	205.0	210.1	154.3	148.7	228.9	189.2
22	143.7	166.9	157.8	176.7	141.5	158.8	187.2	195.1	145.8	168.6	232.2	204.1
23	144.2	173.0	199.9	191.7	137.8	162.8	180.9	191.9	136.1	181.2	222.7	208.4
24	140.4	191.1	190.1	206.4	132.4	157.1	181.9	176.5	136.3	188.3	217.7	208.1
25	146.8	207.5	188.0	212.9	126.1	177.2	179.0	172.5	133.1	206.2	204.1	205.1
26	156.6	206.1	177.8	226.9	123.3	187.1	167.7	171.2	136.4	210.6	210.4	192.4
27	159.3	214.3	179.9	227.7	124.4	194.8	164.5	156.4	128.4	222.9	204.1	186.0
28	156.2	203.2	203.9	253.4	126.5	181.5	170.1	145.4	122.2#	214.7	200.3	186.0
29	152.7	197.7	208.6	222.5	125.3	177.2	159.5	139.0	123.9	215.1	208.3	177.5
30	161.1	216.5	212.2	201.9	125.1	167.0	158.3	131.2	128.7		205.1	172.0
31	170.1		206.7	186.1		158.1		125.8	134.5		225.1	
Mean	151.9	175.2	171.0	175.0	137.2	163.7	187.4	164.5	153.9	153.9	206.1	185.5

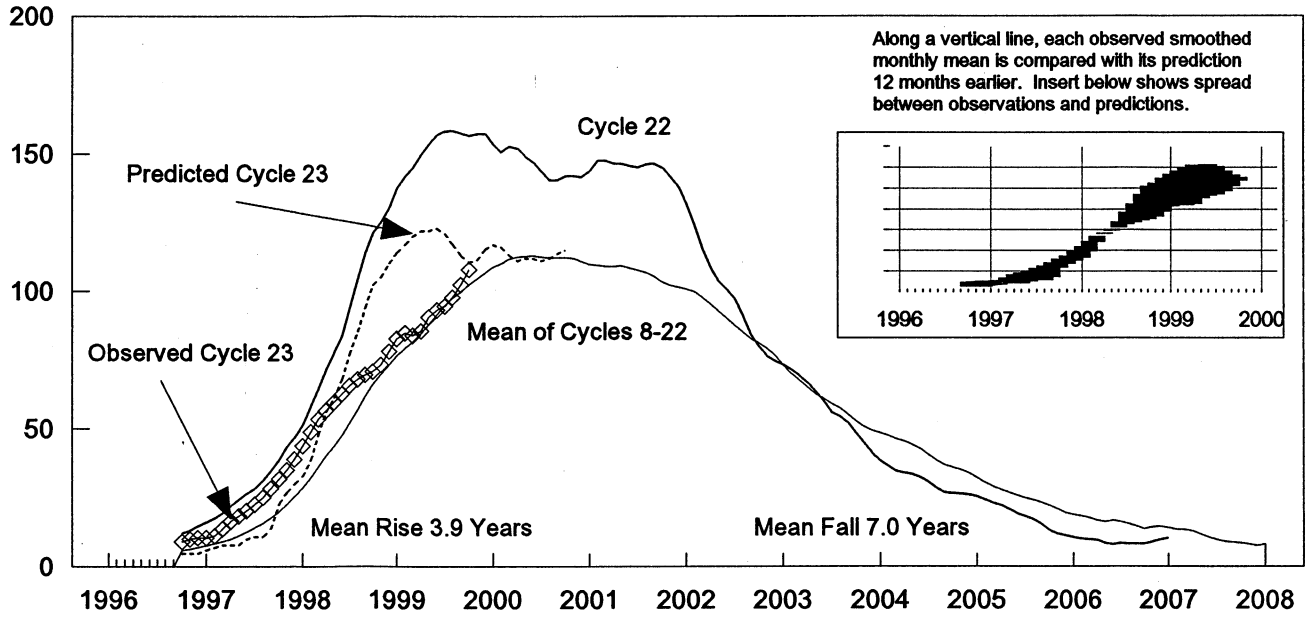
NOTE: * 2300UT reading - hail on antenna at 2000UT. ; #1800UT reading - burst in progress at 2000UT

DAILY SOLAR INDICES
April 2000

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit — SGMR (15400)	SGMR (8800)	SGMR (4995)	Pentic (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
1	92	17	187	229	222.9	591	313	250	222.7	207	168	81	50	21
2	93	18	193	200	219.3	589	316	250	219.3	204	168	82	51	24
3	94	19	177	188	215.4	573	316	246	215.5	204	162	79	---	26
4	95	20	164	169	206.7	577	319	251	206.9	201	159	81	53	24
5	96	21	129	141	194.4	585	303	229	194.7	185	150	76	55	25
6	97	22	108	120	177.7	569	303	223	178.1	172	144	76	53	20
7	98	23	94	108	174.9	583	294	203	175.4	171	143	75	48	17
8	99	24	100	105	182.0	585	303	217	182.5	178	147	75	47	17
9	100	25	108	103	176.3	582	285	200	176.9	170	139	74	49	22
10	101	26	102	101	177.8	584	296	208	178.6	170	142	76	49	17
11	102	27	96	104	181.5	582	302	212	182.4	169	145	76	50	17
12	103	1	107	118	173.0	580	296	207	173.9	165	143	75	54	17
13	104	2	118	131	164.0	579	294	201	165.0	160	142	73	45	17
14	105	3	114	111	165.2	575	291	199	166.3	159	144	74	46	17
15	106	4	105	116	163.7	565	290	199	164.9	159	141	74	50	32
16	107	5	98	121	159.0	559	284	196	160.2	153	135	73	52	17
17	108	6	110	109	157.9	571	---	193	159.2	155	133	78	50	---
18	109	7	94	95	160.4	568	288	200	161.8	154	132	73	50	39
19	110	8	103	107	167.7	554	294	202	169.2	160	131	71	56	41
20	111	9	121	130	180.6	587	304	223	182.4	167	135	74	53	91
21	112	10	128	152	187.3	554	310	235	189.2	199	133	81	42	26
22	113	11	145	162	201.8	501	254	207	204.1	178	136	69	52	19
23	114	12	170	177	206.1	541	307	249	208.4	191	146	73	58	---
24	115	13	160	183	205.6	580	337	265	208.1	198	149	80	51	---
25	116	14	151	156	202.5	590	337	272	205.1	199	148	87	84	71
26	117	15	136	133	189.9	484	263	207	192.4	193	128	63	67	---
27	118	16	118	123	183.5	556	324	240	186.0	186	141	71	61	113
28	119	17	124	133	183.4	550	317	248	186.0	178	140	72	50	34
29	120	18	100	113	174.9	575	317	231	177.5	171	135	75	89	153
30	121	19	100	107	169.5	579	301	214	172.0	169	132	73	---	---
MEAN			125.3	134.9	184.2	568	302	222	185.5	177	143	75	54	73

The International and American sunspot numbers shown above are preliminary values.
NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.

Cycle 23 Smoothed Sunspot Numbers: Observed and Predicted



Smoothed Sunspot Numbers (observed and Predicted) for Parts of Solar Cycles 22 and 23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1992	124	115	108	103	100	97	91	84	80	76	74	73	94
1993	71	69	67	64	60	56	55	52	48	45	41	38	56
1994	37	35	34	34	33	31	29	27	27	27	26	26	31
1995	24	23	22	21	19	18	17	15	13	12	11	11	17
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	114	114	96
											(3)	(6)	(1)
2000	113	114	115	116	116	116	116	116	116	115	114	114	115
	(9)	(12)	(14)	(16)	(19)	(20)	(21)	(24)	(27)	(29)	(32)	(34)	(21)

Solar Cycle 22 | Solar Cycle 23 | Min, Max, and Predictions

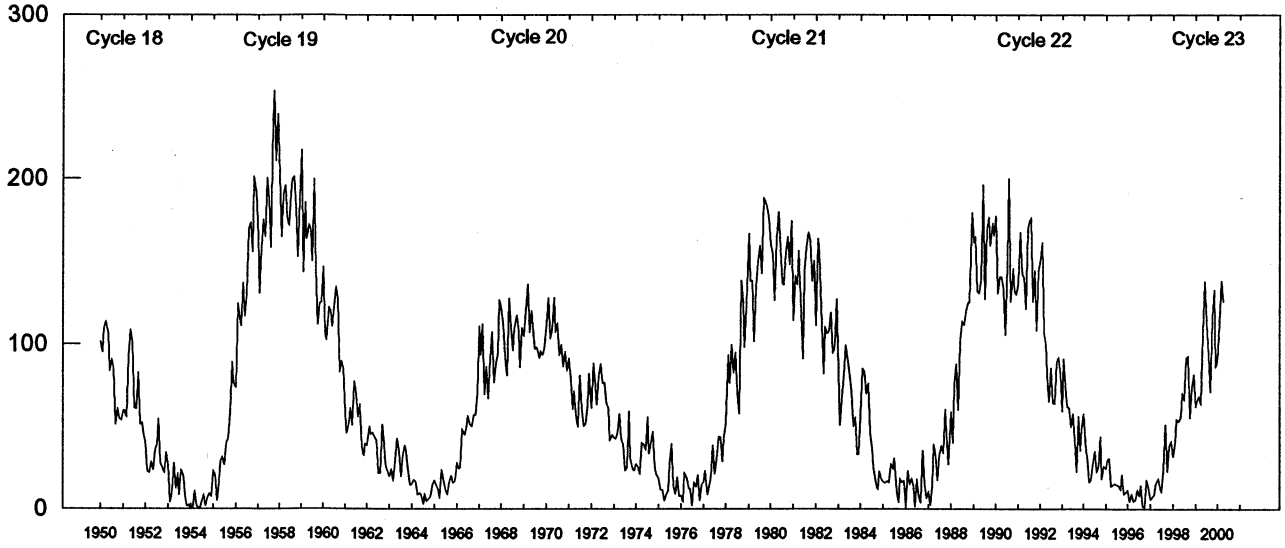
*** May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.**

Observed and Predicted Numbers. For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Dec 1999 and on provisional numbers thereafter. Table entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the Jul 1987 supplement to *Solar-Geophysical Data.*) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval. Subtracting the number from the predicted value generates the lower limit. Consider, for example, the October 2000 prediction. There exists a 90% chance that in October 2000, the actual smoothed number will fall somewhere between 86 and 144.

Points to Ponder. The McNish-Lincoln prediction method generates useful estimates of smoothed, monthly mean sunspot numbers for no more than 12 months ahead. Beyond 12 months, the predictions regress toward the mean of all 15 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the consensus minimum value of 8.8 that occurred in October 1996.

Note: Please visit http://www.sec.noaa.gov for solar minimum and Cycle 23 discussions.

Mean Monthly Sunspot Numbers
Jan 1950 - Apr 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1	83.9	
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4	
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5	
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9	
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4	m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0	
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7	
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2	M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8	
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0	
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3	
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9	
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6	
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9	
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2	m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1	
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0	
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8	
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9	M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5	
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5	
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6	
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9	
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0	
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5	
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5	
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6	m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5	
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5	
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4	M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6	
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4	
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9	
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6	
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9	
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9	
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4	m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4	
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2	
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6	M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6	
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7	
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3	
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6	
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9	
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.5	14.3	11.8	21.1	9.0	10.0	17.5	
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6	m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5	
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3	
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2	
2000	90.2	112.3	138.2	125.3									116.5	

Values are preliminary after Dec 99. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

Hα SOLAR FLARES

APRIL 2000

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	01	0003	0014	0024	S16	E45	8936	04	4.4	21	SF		3	E		39		
LEAR		0030	0101	0119	S17	W34	8925	03	29.5	49	SF		3	E		68		
LEAR		0109E	0154	0204	S19	E75		04	6.8	55D	SF		3	E		17		
LEAR		0158	0202	0209	S17	E41	8936	04	4.2	11	SF		3	E		13		
LEAR		0204	0207	0214	S19	E75		04	6.8	10	SF		3	E		15		
LEAR		0212	0213	0215	N24	E58	8939	04	5.6	3	SF		3	E		19		
LEAR		0246	0256	0309	S19	E84		04	7.5	23	SF		3	E		27		
LEAR		0312	0315	0348	S17	W35	8925	03	29.6	36	SF		3	E		34		
GOES		0344	0349	0354	S17	W35	8925			10	SF	C 8.2						2.8E-03
LEAR		0402	0406	0419	N24	E57	8939	04	5.6	17	SF		3	E		39		
LEAR		0405	0406	0410	S17	E40	8936	04	4.2	5	SF		3	E		13		
LEAR		0432	0439	0510	S19	E74		04	6.8	38	SF		3	E		14		
GOES		0518	0526	0530			8936			12		C 2.5						1.5E-03
LEAR		0524	0524	0551	N10	W47	8924	03	28.8	27	SF		3	E		50		
LEAR		0525	0528	0552	S16	E42	8936	04	4.4	27	SF		3	E		24		
LEAR		0659	0700	0721	S16	E41	8936	04	4.4	22	SF		3	E		38		
LEAR		0726	0742	0804	N10	W48	8924	03	28.8	38	1N		3	E		128		F
GOES		0733	0744	0753	N10	W48	8924			20	1N	C 8.1						6.3E-03
GOES		1040	1052	1058						18		C 2.2						2.2E-03
GOES		1137	1151	1204	N23	E47	8939			27	SF	C 6.1						8.1E-03
RAMY		1140	1141	1217	N23	E47	8939	04	5.1	37	SF		3	E		57		F
GOES		1226	1232	1238						12		C 3.0						1.8E-03
HOLL		1716E	1717U	1727	N24	E50	8939	04	5.6	11D	SF		3	E		34		
GOES		1743	1759	1813	N24	E45	8939			30	SF	C 8.3						1.1E-02
RAMY		1746	1748	1825	N24	E45	8939	04	5.2	39	SF		3	E		24		
HOLL		1901	1903	1909	N14	W30	8933	03	30.6	8	SF		3	E		16		
GOES		1938	1942	1955	N26	E30				17	SF	C 2.6						2.5E-03
HOLL		1940	1942	1957	N26	E30		04	4.1	17	SF		3	E		52		
HOLL		1943	1952	1956	N10	W54	8924	03	28.9	13	SF		3	E		18		
LEAR	02	0109	0112	0116	N24	E46	8939	04	5.6	7	SF		3	E		31		
LEAR		0127	0128	0132	N16	W33	8933	03	30.6	5	SF		3	E		16		
LEAR		0203	0206	0212	N24	E45	8939	04	5.6	9	SF		3	E		17		
LEAR		0346	0348	0357	N24	E45	8939	04	5.6	11	SF		3	E		17		
LEAR		0348	0351	0356	S08	W09	8935	04	1.5	8	SF		3	E		15		
LEAR		0531	0534	0538	N22	E34	8939	04	4.8	7	SF		3	E		30		
LEAR		0547	0547	0605	N22	E40	8939	04	5.3	18	SF		3	E		40		
GOES		0837	0842	0847	N20	E36	8939			10	SF	C 2.4						1.2E-03
SVTO		0839	0840	0852	N24	E40	8939	04	5.4	13	SF		3	E		41		F
LEAR		0839	0842	0853	N20	E36	8939	04	5.1	14	SF		3	E		32		F
SVTO		1136	1136	1148D	N24	E39	8939	04	5.5	12D	SF		3	E		23		H
HOLL		1551	1554	1600	N16	W42	8933	03	30.6	9	SF		3	E		18		
HOLL		1612	1624	1654	N15	W42	8933	03	30.6	42	SF		3	E		24		
HOLL		1655	1657	1703	S16	E29	8936	04	4.9	8	SF		3	E		13		
HOLL		1655	1713	1722	N16	W43	8933	03	30.5	27	SF		3	E		19		
GOES		1658	1747	1831	S15	E24	8936			93	SF	C 6.1						2.0E-02
HOLL		1704	1713	1845	S15	E24	8936	04	4.5	101	SF		3	E		34		
RAMY		1711	1711	1719	S15	E27	8936	04	4.7	8	SF		3	E		10		
RAMY		1732	1741	1802	S14	E24	8936	04	4.5	30	SF		3	E		44		F
HOLL		1743	1745	1750	N16	W41	8933	03	30.7	7	SF		3	E		15		
HOLL		1751	1754	1802	N15	W42	8933	03	30.7	11	SF		3	E		16		
GOES		1906	1917	1924	S18	W57	8925			18	SF	C 5.2						4.6E-03
HOLL		1907	1918	1942	S18	W57	8925	03	29.5	35	SF		3	E		52		
RAMY		1909	1909	1936	S20	W57	8925	03	29.5	27	SF		3	E		48		F
HOLL		2009	2009	2022	N21	E34	8939	04	5.4	13	SF		3	E		25		
HOLL		2040	2044	2051	S18	E22	8936	04	4.5	11	SF		3	E		21		
HOLL		2307	2313	2325	S18	E19	8936	04	4.4	18	SF		3	E		26		
GOES	03	0700	0704	0708						8		C 2.3						9.5E-04
GOES		1103	1108	1113						10		C 2.8						1.4E-03
HOLL		1702	1703	1712	N16	W56	8933	03	30.6	10	SF		3	E		20		
HOLL		1801	1825	1851	S15	E10	8936	04	4.5	50	SF		3	E		42		
RAMY		1824	1826	1830	S16	E08	8936	04	4.4	6	SF		3	E		10		F
GOES		1847	1850	1852	N14	W56	8933			5	SF	C 2.1						5.1E-04
HOLL		1848	1853	1905	N14	W56	8933	03	30.6	17	SF		3	E		29		
RAMY		1851	1851	1857	N15	W58	8933	03	30.5	6	SF		3	E		17		
HOLL		1939	1941	1947	N22	W19	8943	04	2.3	8	SF		3	E		28		
HOLL		2002	2006	2012	N15	W56	8933	03	30.7	10	SF		3	E		22		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	03	2026	2026	2037	N15	W57	8933	03	30.6	11	SF		3	E		21		
GOES		2101	2107	2113						12		C 3.8						2.1E-03
HOLL		2326	2326	2332	S19	E05	8936	04	4.3	6	SF		3	E		22		F
HOLL	04	0032	0036	0038	N16	W58	8933	03	30.7	6	SF		3	E		15		
GOES		0118	0132	0144						26		M 1.0						1.1E-02
GOES		0514	0525	0539						25		C 5.8						6.9E-03
LEAR		0645	0649	0653	S12	W41	8935	04	1.2	8	SF		3	E		16		
SVTO		1032E	1036U	1054D	S16	E00	8936	04	4.4	22D	SF		1	E		27		F
HOLL		1511	1534	1724	N16	W66	8933	03	30.7	133	2F		3	E		380		S
GOES		1512	1541	1605	N16	W66	8933			53	2F	C 9.7						2.3E-02
RAMY		1513	1533	1611D	N14	W60	8933	03	31.1	58D	1F		3	E		233		F
GOES		1800	1803	1810						10		C 1.9						1.0E-03
HOLL		2037	2037	2042	S15	W75	8925	03	30.3	5	SF		3	E		27		
HOLL		2042	2050	2113	S06	W10	8938	04	4.1	31	SF		3	E		73		
GOES		2042	2055	2104	S06	W10	8938			22	SF	C 2.5						2.8E-03
HOLL		2054	2054	2114	S13	W46	8932	04	1.4	20	SF		3	E		22		
HOLL	05	0025	0026	0041	N16	W73	8933	03	30.6	16	SF		3	E		32		
HOLL		0043	0043	0047	S14	E65	8948	04	9.9	4	SF		3	E		41		
LEAR		0104	0105	0114	S17	W11	8936	04	4.2	10	SF		3	E		22		
GOES		0424	0428	0433						9		C 1.6						7.9E-04
LEAR		0538	0545	0559	N25	W03	8939	04	5.0	21	SF		3	E		28		
LEAR		0549	0556	0603	S08	W50	8935	04	1.5	14	SF		3	E		21		
LEAR		0641	0642	0654	N25	W03	8939	04	5.0	13	SF		3	E		30		
LEAR		0648	0655	0703	S17	E62	8948	04	10.0	15	SF		3	E		19		
HOLL		1641	1648	1655	N15	W62		04	1.0	14	SF		3	E		14		
HOLL		1724	1727	1734	N21	W08	8939	04	5.1	10	SF		3	E		53		F
HOLL		1823	1827	1837	S12	E58	8948	04	10.1	14	SF		3	E		13		
HOLL		2013	2013	2024	S14	W58	8932	04	1.4	11	SF		3	E		11		
HOLL		2155	2156	2200	N16	W80	8933	03	30.9	5	SF		3	E		16		
HOLL		2239	2244	2248	N16	W66	8933	03	31.9	9	SF		3	E		11		
HOLL		2249	2250	2253	N16	W66	8933	03	31.9	4	SF		3	E		17		
HOLL		2255	2256	2259	N17	W83	8933	03	30.7	4	SF		3	E		14		
HOLL		2312	2312	2321	N16	W83	8933	03	30.8	9	SF		3	E		18		
LEAR	06	0132	0133	0139	N21	W13	8939	04	5.1	7	SF		3	E		12		
GOES		0218	0229	0238	S15	E53	8948			20	2B	M 1.8						1.4E-02
LEAR		0221	0226	0324	S15	E53	8948	04	10.1	63	2B		3	E		296		UF
LEAR		0555	0555	0604	N16	W88	8933	03	30.7	9	SF		3	E		13		
GOES		1004	1012	1036	N13	W17	8940			32	SF	C 2.5						4.3E-03
SVTO		1007E	1010U	1022	N13	W17	8940	04	5.1	15D	SF		3	E		72		F
HOLL		1635	1635	1644	S18	W29	8936	04	4.5	9	SF		3	E		20		F
HOLL		1824	1845	1906	S13	E43	8948	04	10.0	42	1F		3	E		120		
GOES		1825	1844	1851	S13	E43	8948			26	1F	C 2.3						3.1E-03
GOES	07	0056	0103	0115	S16	E38	8948			19	SF	C 2.2						2.1E-03
LEAR		0058	0100	0121	S16	E38	8948	04	9.9	23	SF		4	E		83		F
GOES		0443	0449	0459						16		C 2.4						2.1E-03
LEAR		0706	0708	0735	S16	E33	8948	04	9.8	29	SF		3	E		62		E
LEAR		0834	0834	0841	N09	W03	8944	04	7.1	7	SF		3	E		15		
GOES		1212	1217	1225						13		C 1.7						1.2E-03
HOLL		1744	1749U	1810	S17	E28	8948	04	9.9	26	SF		2	E		50		
GOES		1746	1750	1754	S17	E28	8948			8	SF	C 1.9						8.5E-04
HOLL		2354	2416	2432	S15	E26	8948	04	10.0	38	SF		3	E		60		
LEAR	08	0007	0008	0116D	S16	E28	8948	04	10.1	69D	SF		3	E		67		
LEAR		0129	0130	0138	S16	E27	8948	04	10.1	9	SF		4	E		16		F
GOES		0234	0240	0250	S15	E26	8948			16	1B	M 2.0						1.2E-02
LEAR		0356	0357	0401	N12	E72	8951	04	13.6	5	SF		4	E		20		
LEAR		0412	0414	0422	N10	E68	8951	04	13.3	10	SF		4	E		26		
LEAR		0447	0447	0452	S19	E24	8948	04	10.0	5	SF		3	E		13		F
LEAR		0658	0713	0745	S16	E22	8948	04	9.9	47	SF		3	E		39		F
SVTO		0659	0718	0731	S15	E24	8948	04	10.1	32	SF		3	E		28		F
GOES		0704	0717	0722	S15	E24	8948			18	SF	C 2.9						2.3E-03
GOES		0736	0739	0741	S17	E21	8948			5	SF	C 1.4						3.6E-04
SVTO		0738	0739	0743	S17	E21	8948	04	9.9	5	SF		3	E		17		
GOES		0916	0920	0924	S15	E21	8948			8	SF	C 2.9						1.0E-03

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	08	0918	0942	1002	S15	E21	8948	04	10.0	44	SF		3	E		68		
GOES		0934	0943	0949	S15	E23	8948			15	SF	C 8.2						4.7E-03
SVTO		0935	0942	1005	S15	E23	8948	04	10.1	30	SF		3	E		99		F
GOES		1347	1406	1410	S14	E20	8948			23	SF	C 1.8						1.8E-03
RAMY		1403	1407	1420	S14	E20	8948	04	10.1	17	SF		3	E		24		FH
SVTO		1411	1417	1422	S14	E18	8948	04	9.9	11	SF		3	E		10		F
GOES		1411	1420	1432	S14	E18	8948			21	SF	C 2.6						2.8E-03
HOLL		1413	1415	1425	S15	E18	8948	04	9.9	12	SF		3	E		22		
HOLL		1427	1429	1438	S15	E18	8948	04	10.0	11	SF		3	E		22		
RAMY		1428	1428	1432	S14	E19	8948	04	10.0	4	SF		3	E		13		
GOES		1544	1654	1814						150		C 1.9						1.4E-02
HOLL		1610	1610	1614	S17	E16	8948	04	9.9	4	SF		3	E		27		
GOES		1822	1834	1848	S15	E18	8948			26	SF	C 2.7						3.7E-03
HOLL		1840	1842	1851	S15	E18	8948	04	10.1	11	SF		3	E		16		
GOES		2040	2046	2049	S14	E19	8948			9	1N	M 1.8						5.6E-03
HOLL		2041	2047	2142	S14	E19	8948	04	10.3	61	1N		3	E		185		
RAMY		2056E	2056U	2114D	S14	E18	8948	04	10.2	18D	SF		3	E		70		
GOES		2258	2301	2303						5		C 2.1						5.3E-04
LEAR		2343	2343	2349	S21	W72	8946	04	3.5	6	SF		3	E		11		
LEAR	09	0030	0036	0044	S16	E15	8948	04	10.1	14	SF		3	E		23		
GOES		0031	0035	0041	S16	E15	8948			10	SF	C 2.2						1.2E-03
LEAR		0302	0311	0348	S16	E13	8948	04	10.1	46	SF		4	E		80		
LEAR		0407	0413	0442	S16	E13	8948	04	10.1	35	1N		3	E		168		
GOES		0408	0416	0423	S16	E13	8948			15	1N	M 1.1						6.5E-03
LEAR		0516	0519	0525	S13	E13	8948	04	10.2	9	SF		3	E		19		
LEAR		0535	0536	0540	S15	E11	8948	04	10.1	5	SF		3	E		13		
GOES		0740	0744	0748	N19	W53	8939			8	SF	C 1.4						6.2E-04
LEAR		0741	0743	0809	N19	W53	8939	04	5.3	28	SF		3	E		95		
GOES		0950	0957	1005						15		C 1.9						1.4E-03
GOES		1358	1421	1438						40		C 2.2						4.0E-03
GOES		1526	1530	1534	S17	E06	8948			8	SF	C 5.6						1.7E-03
RAMY		1529	1530	1539	S17	E06	8948	04	10.1	10	SF		3	E		60		
GOES		2122	2127	2132						10		C 2.8						1.2E-03
GOES		2326	2342	2355	S14	W01	8948			29	2B	M 3.1						3.2E-02
LEAR		2329	2336U	2356D	S14	W01	8948	04	9.9	27D	2B		3	E		446		U
HOLL		2347E	2357U	2446D	S13	E01	8948	04	10.1	59D	1N		2	E		231		UF
GOES	10	0019	0027	0032	S13	E01	8948			13	1N	C 8.1						5.4E-03
LEAR		0234	0234	0241	N10	W34	8944	04	7.5	7	SF		3	E		18		
GOES		0513	0520	0524						11		C 2.6						1.3E-03
GOES		0750	0755	0807	S20	E02	8948			17	SF	C 1.6						1.4E-03
LEAR		0753E	0754U	0805D	S20	E02	8948	04	10.5	12D	SF		2	E		52		F
GOES		0953	1002	1008						15		C 6.5						3.8E-03
GOES		1851	1911	1916						25		C 8.6						6.4E-03
GOES		2012	2020	2024	S18	W09	8948			12	SF	C 2.1						1.3E-03
HOLL		2014	2017	2025	S18	W09	8948	04	10.1	11	SF		3	E		54		F
HOLL		2053	2109	2144	S14	W09	8948	04	10.2	51	1N		3	E		110		F
GOES		2101	2110	2117	S14	W09	8948			16	1N	C 8.2						5.1E-03
LEAR	11	0016	0017	0022	S20	E86	8955	04	17.6	6	SF		3	E		20		
GOES		0058	0103	0112						14		C 1.1						8.8E-04
GOES		0138	0143	0149	N25	W78	8939			11	SF	C 1.3						7.8E-04
LEAR		0140	0141	0149	N25	W78	8939	04	5.0	9	SF		3	E		37		
GOES		0237	0302	0348	S14	W11	8948			71	SF	C 1.7						5.7E-03
LEAR		0244	0304	0326	S14	W11	8948	04	10.3	42	SF		3	E		43		
LEAR		0501	0515	0539	S15	W13	8948	04	10.2	38	SF		3	E		58		
GOES		0706	0710	0713	S17	W14	8948			7	SF	C 1.3						4.5E-04
LEAR		0709	0712	0720	S17	W14	8948	04	10.2	11	SF		3	E		30		
LEAR		0731	0734	0736	S14	W13	8948	04	10.3	5	SF		3	E		10		
LEAR		0740	0750	0812	S15	W14	8948	04	10.2	32	SF		4	E		79		F
GOES		0747	0751	0757	S15	W14	8948			10	SF	C 2.2						1.1E-03
SVTO		0750E	0750U	0759	S15	W14	8948	04	10.3	9D	SF		3	E		10		F
LEAR		0844	0844	0850	N16	E73		04	16.9	6	SF		3	E		17		
GOES		1004	1010	1024						20		C 2.3						2.2E-03
GOES		1118	1122	1127						9		C 1.5						6.9E-04
GOES		1624	1627	1630						6		C 1.0						3.3E-04
HOLL		1645	1649	1653	N32	E62	8954	04	16.6	8	SF		3	E		27		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	11	1757	1810	1817	S16	W18	8948			20	1N	M 1.0						8.0E-03
HOLL		1800	1810	1845	S16	W18	8948	04	10.4	45	1N		3	E		141		
RAMY		1801	1804	1823	S15	W19	8948	04	10.3	22	SF		3	E		60		F
HOLL		1918	1919	1928	S16	W20	8948	04	10.3	10	SF		3	E		22		
HOLL		1957	1958	2001	S20	E70	8955	04	17.2	4	SF		3	E		25		
GOES		2329	2337	2345	S15	W22	8948			16	1N	M 1.1						7.0E-03
LEAR		2333	2334	2429	S15	W22	8948	04	10.3	56	1N		3	E		138		F
LEAR	12	0046	0049	0113	S15	W24	8948	04	10.2	27	SF		3	E		17		
LEAR		0132	0135	0151	N14	E31	8951	04	14.4	19	SF		3	E		27		
LEAR		0229	0232	0235	N14	E30	8951	04	14.4	6	SF		3	E		18		
GOES		0327	0335	0350	S15	W24	8948			23	SF	M 1.3						1.2E-02
LEAR		0331	0332	0413	S15	W24	8948	04	10.3	42	SF		4	E		54		F
LEAR		0417	0417	0429	S15	W25	8948	04	10.3	12	SF		3	E		38		F
GOES		0508	0512	0532						24		C 2.1						2.8E-03
GOES		0622	0630	0633	S19	W28	8948			11	SN	C 2.1						1.2E-03
LEAR		0624	0631	0643	S19	W28	8948	04	10.1	19	SN		3	E		73		
GOES		0903	0923	0941	S16	W30	8948			38	SF	C 1.6						3.1E-03
LEAR		0906	0907	0940	S16	W30	8948	04	10.1	34	SF		3	E		27		
GOES		1205	1214	1218						13		C 7.8						3.1E-03
HOLL		1557	1557	1600	S20	E33		04	15.2	3	SF		3	E		27		
HOLL		1733	1754	1800	S16	W33	8948	04	10.2	27	SF		3	E		16		
GOES		1851	1858	1904	S16	W34	8948			13	SF	C 2.4						1.3E-03
HOLL		1854	1859	1928	S16	W34	8948	04	10.2	34	SF		3	E		38		
GOES	13	0011	0023	0032	S16	W36	8948			21	SF	C 2.9						2.8E-03
HOLL		0014	0020	0055	S16	W36	8948	04	10.3	41	SF		3	E		81		
LEAR		0014	0027	0055	S16	W37	8948	04	10.2	41	SF		3	E		61		F
GOES		1240	1251	1254						14		C 1.5						1.1E-03
HOLL		1728	1730	1733	S22	E49	8955	04	17.5	5	SF		3	E		23		
GOES		2050	2130	2246						116		C 1.0						5.9E-03
HOLL		2204	2207	2211	S25	E44	8955	04	17.3	7	SF		3	E		10		
GOES	14	0141	0151	0218						37		C 4.7						7.3E-03
GOES		0302	0428	0600						178		C 1.1						9.3E-03
GOES		0809	0816	0842	S14	W54	8948			33	1F	C 7.2						1.0E-02
SVTO		0811	0814	0847	S14	W54	8948	04	10.2	36	1F		3	E		113		F
HOLL		1448	1448	1452	N20	W26	8960	04	12.6	4	SF		3	E		12		
HOLL		1523	1525	1528	N19	W26	8960	04	12.6	5	SF		3	E		17		
GOES		2329	2338	2341	S21	E36	8955			12	SF	B 8.7						4.8E-04
HOLL		2335	2338	2345	S21	E36	8955	04	17.7	10	SF		3	E		28		
HOLL		2341	2344	2359	S16	W63	8948	04	10.2	18	SF		3	E		47		
GOES		2341	2345	2351	S16	W63	8948			10	SF	C 4.3						1.9E-03
GOES	15	0001	0007	0013	S21	E30	8955			12	SF	C 3.4						2.2E-03
LEAR		0010E	0010U	0029D	S21	E30	8955	04	17.3	19D	SF		3	E		27		
LEAR		0331	0337	0347	S21	E29	8955	04	17.4	16	SF		3	E		44		
GOES		0756	0802	0805						9		C 2.3						7.4E-04
GOES		0825	0829	0832						7		B 7.3						2.6E-04
GOES		0855	0900	0912						17		B 8.5						7.1E-04
GOES		0934	0940	0946						12		C 1.1						7.0E-04
GOES		1009	1018	1022	S22	E29	8955			13	SF	M 4.3						1.5E-02
RAMY		1025E	1030U	1030D	S22	E29	8955	04	17.7	5D	SF		1	E		64		F
GOES		1213	1217	1223						10		C 1.0						5.8E-04
GOES		1322	1325	1327						5		B 7.8						2.1E-04
GOES		1338	1343	1350	S22	E29	8955			12	SF	C 3.0						1.6E-03
RAMY		1340	1342	1350	S22	E29	8955	04	17.8	10	SF		3	E		23		
GOES		1437	1448	1453	S23	E28	8955			16	1N	M 2.2						1.2E-02
RAMY		1440	1445	1504	S23	E28	8955	04	17.8	24	1N		3	E		101		F
GOES		1534	1537	1545	S17	W71	8948			11	SF	C 1.7						9.5E-04
RAMY		1537	1538	1544	S17	W71	8948	04	10.2	7	SF		3	E		11		H
GOES		1855	1905	1911	S22	E26	8955			16	1N	C 7.7						4.2E-03
HOLL		1857	1905	1947	S22	E26	8955	04	17.8	50	1N		3	E		112		
RAMY		1858	1904	1950D	S23	E26	8955	04	17.8	52D	SF		3	E		36		S
HOLL		2115	2116	2119	S22	E26	8955	04	17.9	4	SF		3	E		13		
GOES		2136	2143	2149	S22	E25	8955			13	SF	C 6.5						3.5E-03
HOLL		2138	2140	2203	S22	E25	8955	04	17.8	25	SF		3	E		60		
RAMY		2148E	2148U	2158D	S27	E19	8955	04	17.4	10D	SF		2	E		34		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	15	2237	2239	2251	S25	W19	8961	04	14.5	14	SF		3	E		18		
HOLL		2248	2248	2252	N19	W43	8960	04	12.7	4	SF		3	E		15		
GOES	16	0006	0015	0021	S21	E23	8955			15	1N	C 6.3						3.4E-03
HOLL		0007	0012	0039	S21	E23	8955	04	17.8	32	1N		3	E		148		F
LEAR		0008	0014	0042	S21	E23	8955	04	17.8	34	1B		3	E		152		F
LEAR		0032	0032	0035	N30	W01	8954	04	15.9	3	SF		4	E		15		
GOES		0210	0227	0312	S21	E22	8955			62	SF	C 1.9						6.3E-03
LEAR		0220E	0234	0318	S21	E22	8955	04	17.8	58D	SF		3	E		78		
GOES		0353	0402	0409	S14	W74	8957			16	SF	C 4.2						2.9E-03
LEAR		0356E	0356U	0402D	S14	W74	8957	04	10.6	6D	SF		3	E		36		
GOES		0550	0556	0606	S22	E20	8955			16	1N	C 5.9						3.3E-03
LEAR		0553	0600	0617	S22	E20	8955	04	17.8	24	1N		3	E		137		F
SVTO		0553E	0601U	0607	S22	E20	8955	04	17.8	14D	SF		2	E		46		F
GOES		1258	1305	1312						14		C 1.0						7.2E-04
GOES		1627	1631	1633	S17	W14	8959			6	SF	C 1.4						3.6E-04
HOLL		1629	1632	1638	S17	W14	8959	04	15.6	9	SF		3	E		18		
GOES		1644	1651	1655						11		C 1.0						5.9E-04
GOES		1759	1802	1804						5		B 7.9						2.0E-04
GOES		1901	1911	1917	S21	E13	8955			16	SF	B 9.5						8.3E-04
HOLL		1902	1909	1946	S21	E13	8955	04	17.8	44	SF		3	E		43		
HOLL		1914	1915	1920	N34	E23	8964	04	18.6	6	SF		3	E		22		
GOES		2112	2117	2137	S21	E12	8955			25	SF	C 1.0						1.3E-03
HOLL		2114	2116	2141	S21	E12	8955	04	17.8	27	SF		3	E		63		F
GOES	17	0023	0028	0035	S21	E09	8955			12	1F	C 2.5						1.3E-03
HOLL		0024	0031	0108	S21	E09	8955	04	17.7	44	1F		3	E		120		
LEAR		0028E	0029U	0058	S21	E04	8955	04	17.3	30D	1F		2	E		107		F
GOES		0454	0502	0511						17		C 1.4						1.1E-03
GOES		1726	1734	1739	S25	E01	8955			13	1N	C 3.7						2.0E-03
HOLL		1727	1736	1753	S25	E01	8955	04	17.8	26	1N		3	E		137		F
GOES		2110	2116	2124						14		C 1.0						6.9E-04
LEAR	18	0242	0248	0251	S22	W08	8955	04	17.5	9	SF		3	E		25		
LEAR		0508	0515	0521	S23	W08	8955	04	17.6	13	SF		3	E		20		
GOES		0559	0609	0619						20		C 1.9						1.9E-03
LEAR		0745	0746	0751	N13	E16	8963	04	19.5	6	SF		3	E		22		F
GOES		0758	0805	0808	N16	E16	8963			10	SF	C 7.8						2.1E-03
LEAR		0802	0814	0827	N16	E16	8963	04	19.5	25	SF		2	E		43		F
GOES		1147	1153	1158			8963			11		C 4.0						2.0E-03
GOES		1245	1248	1259						14		C 1.0						7.6E-04
GOES		1320	1330	1335						15		C 1.8						1.5E-03
HOLL		1406	1414	1428	N17	E12	8963	04	19.5	22	SF		3	E		50		F
GOES		1408	1415	1422	N17	E12	8963			14	SF	C 4.2						2.5E-03
LEAR	19	0051E	0054U	0059	N24	E79		04	25.1	8D	SF		3	E		19		
LEAR		0052E	0115U	0120D	N15	E06	8963	04	19.5	28D	SF		3	E		15		F
LEAR		0131E	0132U	0151D	N21	E73		04	24.6	20D	SF		3	E		24		
GOES		0200	0204	0209						9		C 1.2						5.8E-04
GOES		0330	0355	0428	N19	E73	8967			58	SF	C 5.9						1.5E-02
LEAR		0334	0434	0452	N19	E73		04	24.7	78	SF		3	E		29		
GOES		0542	0547	0551	N15	E05	8963			9	SF	C 4.3						1.7E-03
SVTO		0546	0548	0552	N15	E05	8963	04	19.6	6	SF		3	E		21		F
GOES		0553	0604	0611	N16	E04	8963			18	SF	C 4.6						4.5E-03
SVTO		0600	0600	0614	N16	E04	8963	04	19.5	14	SF		3	E		17		F
LEAR		0607	0609	0621	N13	E04	8963	04	19.5	14	SF		3	E		27		
GOES		0631	0634	0640						9		C 2.0						1.0E-03
HOLL		1336	1336	1340	S17	W60	8959	04	15.0	4	SF		3	E		17		
HOLL		1342	1355	1419	S19	W59	8959	04	15.1	37	SF		3	E		96		
GOES		1347	1355	1403	S19	W59	8959			16	SF	C 3.6						2.7E-03
SVTO		1354	1355	1405	S15	W58	8959	04	15.2	11	SF		3	E		36		F
HOLL		1817	1820	1823	S17	W63	8959	04	15.0	6	SF		3	E		15		
HOLL		1817	1821	1831	N13	E00	8963	04	19.8	14	SF		3	E		17		
HOLL		2041	2046	2053	N18	W38	8958	04	17.0	12	SF		3	E		17		
GOES		2255	2300	2303	N13	W05	8963			8	1N	C 4.2						1.2E-03
HOLL		2258	2300	2313	N13	W05	8963	04	19.6	15	1N		3	E		148		
LEAR	20	0047	0048	0152D	N22	W41	8958	04	16.9	65D	SF		3	E		31		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	20	0052	0100	0106	N17	W05	8963			14	SF	C 1.6						1.2E-03
LEAR		0100	0101	0105	N17	W05	8963	04	19.7	5	SF		3	E		11		
GOES		0454	0502	0510						16		C 2.0						1.7E-03
GOES		0717	0723	0729	N22	E56	8967			12	SF	C 1.8						1.2E-03
LEAR		0719E	0720U	0732	N22	E56	8967	04	24.6	13D	SF		3	E		56		
LEAR		0814	0815	0820	N21	E55	8967	04	24.5	6	SF		3	E		19		
GOES		1024	1033	1043	N11	E61	8969			19	SF	C 8.6						6.5E-03
SVTO		1043E	1043U	1048	N11	E61		04	25.0	5D	SF		3	E		14		F
RAMY		1201E	1201U	1206D	N18	W70	8959	04	15.2	5D	SF		3	E		23		
HOLL		1336	1336	1345	S18	W75	8959	04	14.8	9	SF		3	E		17		
HOLL		1927	1935	2019	N15	W18	8963	04	19.4	52	SF		3	E		92		
GOES		1928	1937	1944	N15	W18	8963			16	SF	C 4.7						3.1E-03
RAMY		1930	1934	2001	N15	W18	8963	04	19.4	31	SF		3	E		40		F
GOES		2045	2103	2114	S13	E43	8966			29	SF	C 1.3						1.8E-03
RAMY		2055	2100	2108	S13	E43	8966	04	24.1	13	SF		3	E		22		
GOES		2132	2144	2201	S23	W45	8955			29	SF	C 1.3						2.1E-03
RAMY		2136	2138U	2209D	S23	W45	8955	04	17.4	33D	SF		3	E		58		F
GOES	21	0054	0059	0102	N13	W19	8963			8	SF	C 2.3						9.3E-04
LEAR		0056	0058	0109	N13	W19	8963	04	19.6	13	SF		3	E		42		
GOES		0234	0237	0247						13		C 1.3						9.3E-04
GOES		0323	0327	0334						11		C 1.3						7.8E-04
GOES		0515	0529	0544	S23	W49	8955			29	SF	C 1.7						2.3E-03
SVTO		0524	0527	0537	S23	W49	8955	04	17.4	13	SF		3	E		21		F
GOES		0923	0928	0934	N18	W24	8963			11	SF	C 1.7						1.0E-03
SVTO		0926	0928	0933	N18	W24	8963	04	19.6	7	SF		3	E		15		
HOLL		1507	1508	1519	N15	W27	8963	04	19.6	12	SF		3	E		33		
GOES		1507	1509	1511	N15	W27	8963			4	SF	C 1.2						2.7E-04
GOES		1519	1523	1526	N14	W27	8963			7	SF	C 1.4						5.2E-04
SVTO		1520	1524	1527	N16	W26	8963	04	19.7	7	SF		3	E		21		F
RAMY		1521	1523	1527	N14	W27	8963	04	19.6	6	SF		3	E		16		
GOES		1753	1758	1806						13		C 4.8						2.4E-03
HOLL		1910	1922	1953	N15	W31	8963	04	19.4	43	SF		3	E		61		
GOES		1910	1925	1936	N15	W31	8963			26	SF	C 1.8						2.5E-03
GOES		2032	2035	2041	N15	W32	8963			9	SF	C 1.2						5.7E-04
HOLL		2034	2039	2046	N15	W32	8963	04	19.4	12	SF		3	E		16		
GOES		2142	2147	2206	N23	E39	8967			24	SF	C 1.9						2.4E-03
HOLL		2144	2146	2207	N23	E39	8967	04	24.9	23	SF		3	E		85		
HOLL		2231	2235	2305D	S24	W58	8955	04	17.4	34D	1F		3	E		118		FH
GOES		2232	2236	2253	S24	W58	8955			21	1F	C 1.8						2.0E-03
GOES		2317	2337	2355	N15	W33	8963			38	SF	C 2.0						3.7E-03
HOLL		2332	2337	2429D	N15	W33	8963	04	19.5	57D	SF		3	E		52		F
HOLL		2359E	2404U	2429D	N34	E03	8972	04	22.2	30D	SF		3	E		28		
HOLL	22	0002	0004	0029D	N34	E03	8972	04	22.2	27D	SF		3	E		28		
LEAR		0240	0301	0341	N17	W33	8963	04	19.6	61	SF		3	E		73		F
GOES		0254	0303	0311	N17	W33	8963			17	SF	C 3.0						2.6E-03
LEAR		0536	0537	0541	S15	E50	8970	04	26.0	5	SF		3	E		18		
GOES		0551	0601	0611	N15	W35	8963			20	SF	C 3.6						3.4E-03
SVTO		0554E	0554	0623	N15	W35	8963	04	19.6	29D	SF		3	E		82		F
GOES		1554	1559	1605	N16	E50	8971			11	SF	C 2.0						1.2E-03
HOLL		1556	1556	1609	N16	E50	8971	04	26.4	13	SF		3	E		36		
HOLL		1620	1622	1628	N35	W05	8972	04	22.3	8	SF		3	E		35		
SVTO		1621	1622	1625	N35	W04	8972	04	22.4	4	SF		3	E		25		H
RAMY		1622	1622	1626	N34	W05	8972	04	22.3	4	SF		3	E		24		
HOLL		1750	1752	1754	S14	E62	8970	04	27.4	4	SF		3	E		16		
GOES		1802	1809	1814	S13	E62	8970			12	SF	C 2.6						1.5E-03
HOLL		1802	1811	1829	S13	E62	8970	04	27.4	27	SF		3	E		53		
HOLL		1839	1841	1850	S13	E62	8970	04	27.4	11	SF		3	E		39		
GOES		1847	1859	1914	S13	E62	8970			27	SF	C 1.9						2.5E-03
HOLL		1851	1856	1917	N15	W44	8963	04	19.4	26	SF		3	E		60		
GOES		1851	1916	1923			8972			32		C 2.7						3.5E-03
HOLL		1908	1910	1914	S15	E42	8970	04	26.0	6	SF		3	E		21		
HOLL		1911	1915	1921	N35	W06	8972	04	22.3	10	SF		3	E		51		
HOLL		1926	1939	1949	N33	W08	8972	04	22.2	23	SF		3	E		53		
GOES		2025	2029	2041	N33	W09	8972			16	SF	C 1.4						1.3E-03
HOLL		2026	2026	2043	N33	W09	8972	04	22.1	17	SF		3	E		30		
GOES		2122	2131	2137	N34	W08	8972			15	SF	C 1.9						1.5E-03

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
HOLL	22	2125	2129	2131	N34	W08	8972	04	22.2	6	SF		3	E		20		
GOES		2149	2154	2156	N35	W06	8972			7	SF	C 3.3						9.8E-04
HOLL		2151	2152	2159	N35	W06	8972	04	22.4	8	SF		3	E		24		
HOLL		2213	2213	2216	S15	E41	8970	04	26.0	3	SF		3	E		16		
HOLL		2224	2229	2243	S15	E21	8966	04	24.5	19	SF		3	E		12		F
GOES		2339	2354	2357	N34	W10	8972			18	1N	C 7.1						2.8E-03
HOLL		2353	2355	2404	N34	W10	8972	04	22.2	11	1N		3	E		136		
HOLL		2359E	2404U	2429D	N34	E03	8972	04	23.2	30D	SF		3	E		28		
GOES	23	0108	0125	0136						28		C 4.7						5.2E-03
GOES		0504	0515	0525						21		C 1.2						1.4E-03
GOES		0558	0624	0633	N22	E20	8967			35	SF	C 2.1						3.8E-03
SVTO		0600	0610	0617	N22	E20	8967	04	24.8	17	SF		3	E		14		F
HOLL		1338	1338	1354	N18	E48	8971	04	27.2	16	SF		3	E		12		
GOES		1344	1349	1353			8970			9		C 2.7						1.1E-03
HOLL		1346	1352	1356	N34	W17	8972	04	22.2	10	SF		3	E		48		
SVTO		1347	1352	1354	N34	W17	8972	04	22.2	7	SF		3	E		18		H
SVTO		1348	1348	1354	S14	E48	8970	04	27.2	6	SF		3	E		10		F
HOLL		1348	1349	1400	S13	E49	8970	04	27.3	12	SF		3	E		33		
RAMY		1350	1352	1354	N33	W18	8972	04	22.1	4	SF		3	E		14		
HOLL		1536	1537	1629	N18	E48	8971	04	27.3	53	SF		3	E		28		
HOLL		1548	1606	1617	N23	E17	8967	04	25.0	29	SF		3	E		70		
SVTO		1551	1607	1612	N23	E18	8967	04	25.0	21	SF		3	E		25		
RAMY		1603	1607	1612	N23	E18	8967	04	25.0	9	SF		3	E		19		F
HOLL		1702	1704	1712	N17	E47	8971	04	27.3	10	SF		3	E		32		
HOLL		2017	2019	2027	N18	E45	8971	04	27.3	10	SF		3	E		17		
HOLL		2023	2030	2038	N24	E14	8967	04	24.9	15	SF		3	E		26		
HOLL		2057	2059	2102	N18	E44	8971	04	27.2	5	SF		3	E		14		
HOLL		2204	2204	2212	N17	E46	8971	04	27.4	8	SF		3	E		22		
HOLL		2217	2217	2223	N18	E45	8971	04	27.3	6	SF		3	E		20		
HOLL	24	0039	0042	0051	N17	E42	8971	04	27.2	12	SF		3	E		46		
HOLL		0053	0100U	0120D	N14	E10	8967	04	24.8	27D	SF		2	E		37		
GOES		0102	0111	0126	N20	E11	8967			24	SF	C 2.7						3.4E-03
LEAR		0103	0105	0135	N20	E11	8967	04	24.9	32	SF		3	E		39		F
LEAR		0218	0222	0236	N23	E11	8967	04	24.9	18	SF		3	E		35		
GOES		0322	0326	0330						8		C 1.1						5.1E-04
GOES		0333	0336	0340	N33	W17	8972			7	SF	C 1.6						5.6E-04
LEAR		0335	0335	0350	N33	W17	8972	04	22.8	15	SF		3	E		54		
LEAR		0748	0748	0757	N16	E37	8971	04	27.1	9	SF		4	E		12		F
GOES		0834	0838	0840	N16	E37	8971			6	SF	C 1.4						4.0E-04
LEAR		0837	0838	0845	N16	E37	8971	04	27.2	8	SF		4	E		21		
GOES		0855	0859	0903						8		C 1.5						5.6E-04
SVTO		1039E	1041U	1045	N17	E38	8971	04	27.3	6D	SF		2	E		18		
GOES		1252	1306	1311	N14	W69	8963			19	SF	C 1.1						1.2E-03
RAMY		1255	1256	1258	N14	W69	8963	04	19.3	3	SF		3	E		16		F
HOLL		1429	1628	1653	N19	E32	8971	04	27.0	144	SF		3	E		55		
HOLL		1555	1556	1602	N32	W33	8972	04	22.0	7	SF		3	E		10		
HOLL		1604	1604	1609	N33	W32	8972	04	22.1	5	SF		3	E		11		
GOES		1625	1628	1630			8964			5		C 1.0						2.7E-04
HOLL		1716	1718	1721	N35	W75	8964	04	18.7	5	SF		3	E		24		
GOES		1741	1746	1752			8972			11		C 1.9						9.9E-04
RAMY		1743	1744	1751	N33	W27	8972	04	22.6	8	SF		3	E		40		F
HOLL		1743	1801	1845	N34	W28	8972	04	22.5	62	1F		3	E		116		FH
GOES		1756	1803	1813	N33	W26	8972			17	SN	C 2.9						2.3E-03
RAMY		1759	1802	1828D	N33	W26	8972	04	22.7	29D	SN		3	E		60		FH
HOLL		1848	1901	1916	N33	W33	8972	04	22.2	28	SF		3	E		32		
HOLL		1935	1935	1940	N33	W35	8972	04	22.0	5	SF		3	E		19		
HOLL		1945	1946	1959	N33	W34	8972	04	22.1	14	SF		3	E		17		
GOES		1954	2001	2007	N21	W02	8967			13	SF	C 2.0						1.2E-03
HOLL		1957	1958	2006	N21	W02	8967	04	24.7	9	SF		3	E		17		
HOLL		1958	1958	2003	N13	W70	8963	04	19.5	5	SF		3	E		41		
HOLL		2048	2049	2054	N33	W34	8972	04	22.2	6	SF		3	E		19		
HOLL		2148	2148	2157	N33	W35	8972	04	22.1	9	SF		3	E		15		
HOLL		2201	2202	2215	N32	W37	8972	04	22.0	14	SF		3	E		11		
HOLL		2212	2213	2216	N20	W40	8962	04	21.9	4	SF		3	E		27		
HOLL		2223	2223	2227	N20	W40	8962	04	21.9	4	SF		3	E		26		
HOLL		2247	2248	2256	N20	E30	8971	04	27.2	9	SF		3	E		21		

Hα SOLAR FLARES

APRIL 2000

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	25	0331	0335	0340	S15	E27	8970			9	SF	C 1.3						6.3E-04
LEAR		0333	0335	0342	S15	E27	8970	04	27.2	9	SF		4	E		17		F
LEAR		0418	0418	0435	N34	W30	8972	04	22.8	17	SF		4	E		11		
GOES		0920	0929	0952	N35	W34	8972			32	SF	C 1.8						2.9E-03
SVTO		0923	0926	0956D	N35	W34	8972	04	22.7	33D	SF		3	E		53		F
GOES		1038	1043	1048						10		C 2.7						1.2E-03
SVTO		1054E	1058U	1101D	N24	W07	8967	04	24.9	7D	SF		3	E		15		F
HOLL		1513	1514	1519	N17	E20	8971	04	27.1	6	SF		3	E		29		
HOLL		1643	1644	1650	N26	W06	8967	04	25.2	7	SF		3	E		39		
HOLL		1700	1700	1704	N34	W38	8972	04	22.7	4	SF		3	E		23		
HOLL		1725	1728	1741	N25	W11	8967	04	24.9	16	SF		3	E		17		
GOES		1756	1804	1809	N25	W11	8967			13	1F	C 1.6						1.0E-03
HOLL		1758	1804	1825	N25	W11	8967	04	24.9	27	1F		3	E		116		
RAMY		1759	1800U	1815D	N24	W10	8967	04	25.0	16D	SF		3	E		55		F
GOES		1844	1848	1852	N35	W40	8972			8	SF	C 1.6						5.8E-04
HOLL		1846	1848	1905	N35	W40	8972	04	22.6	19	SF		3	E		55		
RAMY		1848E	1849U	1907	N34	W39	8972	04	22.7	19D	SF		3	E		58		
HOLL		1856	1858	1914	N24	W11	8967	04	24.9	18	SF		3	E		29		
HOLL		2215	2217	2232	N35	W42	8972	04	22.6	17	SF		3	E		65		
GOES		2309	2314	2322						13		C 2.5						1.7E-03
HOLL		2323	2327	2336	N24	E16	8971	04	27.2	13	SF		3	E		42		
LEAR	26	0206	0208	0211	S11	W53	8968	04	22.1	5	SF		3	E		18		F
GOES		0556	0602	0607						11		C 1.6						9.4E-04
LEAR		0729	0736	0742	S14	W46	8965	04	22.8	13	SF		3	E		14		
SVTO		0737	0737	0744	S14	W46	8965	04	22.8	7	SF		3	E		12		F
GOES		0738	0744	0751	S15	E10	8970			13	SF	C 2.8						1.6E-03
SVTO		0742	0742	0752	S16	E11	8970	04	27.1	10	SF		3	E		13		F
LEAR		0742	0751	0758	S15	E10	8970	04	27.1	16	SF		3	E		13		F
GOES		0841	0846	0852						11		C 1.2						6.9E-04
GOES		0903	0909	0914						11		C 1.7						8.5E-04
GOES		0917	0923	0928	S16	E09	8970			11	SF	C 6.3						2.8E-03
SVTO		0920	0920	0935	S16	E09	8970	04	27.1	15	SF		3	E		26		F
SVTO		0950	0951	1023	N22	W24	8967	04	24.6	33	SF		3	E		29		F
GOES		1229	1233	1236						7		C 1.0						3.6E-04
GOES		1241	1245	1251	S17	E08	8970			10	SF	C 1.4						7.0E-04
RAMY		1243	1250	1300	S16	E08	8970	04	27.1	17	SF		3	E		14		F
SVTO		1243	1256	1305	S17	E08	8970	04	27.1	22	SF		3	E		15		F
GOES		1523	1529	1533	S15	W44	8965			10	SF	C 1.6						7.3E-04
HOLL		1528	1531	1537	S15	W44	8965	04	23.3	9	SF		3	E		15		
GOES		1551	1555	1604	S17	E07	8970			13	SF	B 7.5						5.3E-04
HOLL		1553	1556	1601	S17	E07	8970	04	27.2	8	SF		3	E		14		
HOLL		1642	1643	1713	S18	E06	8970	04	27.1	31	SF		3	E		20		
HOLL		1714	1714	1720	N24	W21	8967	04	25.1	6	SF		3	E		15		
HOLL		1847	1905	1932	N21	W27	8967	04	24.7	45	SF		3	E		84		
HOLL		1848	1848	1851	N25	W88	8962	04	20.0	3	SF		3	E		17		
GOES		1852	1905	1911			8967			19		C 2.2						1.8E-03
RAMY		1854	1856	1916	N21	W26	8967	04	24.8	22	SF		3	E		30		F
HOLL		2035	2037	2105	N16	E03	8971	04	27.1	30	SF		3	E		44		
GOES		2150	2154	2157	N24	W24	8967			7	SF	C 1.0						3.6E-04
HOLL		2153	2155	2201	N24	W24	8967	04	25.0	8	SF		3	E		39		
GOES		2300	2304	2308	N21	E05	8971			8	SF	C 1.2						4.8E-04
HOLL		2302	2307	2336	N21	E05	8971	04	27.3	34	SF		3	E		39		
LEAR	27	0146	0146	0150	N23	W27	8967	04	25.0	4	SF		3	E		14		
GOES		0317	0320	0322						5		B 9.0						2.2E-04
GOES		0345	0351	0358	S15	W08	8970			13	SF	C 1.0						7.5E-04
LEAR		0347	0348	0406	S15	W08	8970	04	26.5	19	SF		3	E		22		F
GOES		0441	0444	0447						6		B 7.2						2.4E-04
GOES		0549	0553	0557	S16	W01	8970			8	SF	C 1.7						6.9E-04
SVTO		0551	0551	0604	S16	W01	8970	04	27.2	13	SF		3	E		15		F
SVTO		0617	0619	0628	S11	W08	8970	04	26.6	11	SF		3	E		18		F
SVTO		0645	0645	0648	N24	W32	8967	04	24.8	3	SF		3	E		14		H
GOES		0648	0653	0657	N24	W32	8967			9	SF	C 1.3						6.0E-04
GOES		0756	0808	0813	S16	W02	8970			17	SF	C 2.2						1.5E-03
SVTO		0759	0809	0822	S16	W02	8970	04	27.2	23	SF		3	E		31		F
GOES		0843	0846	0848	S17	W03	8970			5	SF	C 1.1						2.6E-04
SVTO		0846	0846	0853	S17	W03	8970	04	27.1	7	SF		3	E		19		

Hα SOLAR FLARES

APRIL 2000

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	27	0921	0925	0942						21		B 9.2						9.7E-04
GOES		1038	1043	1047	S17	W04	8970			9	SF	C 1.3						5.4E-04
SVTO		1041	1042	1050	S17	W04	8970	04	27.1	9	SF		3	E		19		
GOES		1352	1357	1359						7		B 9.4						3.1E-04
GOES		1404	1440	1456						52		B 9.8						2.4E-03
GOES		1457	1458	1506	N23	W45	8967			9	SF	C 1.1						5.8E-04
RAMY		1457	1458	1513	N23	W45	8967	04	24.1	16	SF		3	E		23		
HOLL		1458	1459	1513	N23	W34	8967	04	25.0	15	SF		3	E		37		
GOES		1547	1550	1555			8971			8		B 8.8						3.8E-04
HOLL		1549	1554	1558	S16	W62	8965	04	22.9	9	SF		3	E		30		
HOLL		1550	1550	1555	N19	W05	8971	04	27.3	5	SF		3	E		15		
GOES		1826	1830	1832	N19	W06	8971			6	SF	C 1.2						3.1E-04
HOLL		1829	1830	1835	N19	W06	8971	04	27.3	6	SF		3	E		64		
HOLL		2116	2140	2149	S12	E19		04	29.3	33	SF		3	E		15		
HOLL		2131	2136	2140	S17	W09	8970	04	27.2	9	SF		3	E		16		
HOLL		2316	2319	2325	S16	W64	8965	04	23.1	9	SF		3	E		24		
HOLL		2335	2340	2343	S16	W63	8965	04	23.2	8	SF		3	E		18		
HOLL		2340	2350	2410	S18	W10	8970	04	27.2	30	SF		3	E		36		
LEAR		2348E	2349U	2402	S18	W12	8970	04	27.1	14D	SF		3	E		18		
GOES	28	0431	0434	0437						6		C 1.0						3.2E-04
GOES		1843	1851	1857	N19	W60	8967			14	1N	C 5.2						2.9E-03
RAMY		1846	1849	1914D	N17	W63	8967	04	24.0	28D	SF		3	E		89		
HOLL		1850	1853	1911	N19	W60	8967	04	24.2	21	1N		3	E		206		
HOLL		2218	2219	2227	S17	W24	8970	04	27.1	9	SF		3	E		12		
HOLL		2344	2346	2349	N33	W86	8972	04	22.1	5	SF		3	E		31		
GOES	29	0007	0013	0023						16		C 1.2						1.1E-03
GOES		0331	0414	0510						99		C 1.8						9.0E-03
GOES		0525	0528	0530	S12	W26	8970			5	SF	C 2.0						5.4E-04
LEAR		0527	0527	0534	S12	W26	8970	04	27.3	7	SF		3	E		41		
GOES		1055	1101	1108						13		B 9.0						6.3E-04
GOES		1123	1206	1234	S11	W06	8976			71	SF	C 3.0						8.1E-03
SVTO		1151E	1152U	1225	S13	W03	8976	04	29.3	34D	SF		2	E		18		F
RAMY		1158	1206	1219	S11	W06	8976	04	29.0	21	SF		3	E		11		
GOES		1340	1343	1345	S14	W31	8970			5	SF	C 1.0						2.8E-04
HOLL		1342	1342	1345	S14	W31	8970	04	27.2	3	SF		3	E		37		
HOLL		1702	1710	1739	N20	W35	8971	04	27.0	37	SF		3	E		30		F
GOES	30	0031	0034	0036	S12	W38	8970			5	SF	C 1.5						3.8E-04
LEAR		0033	0033	0037	S12	W38	8970	04	27.2	4	SF		3	E		26		
GOES		0434	0517	0630						116		C 2.5						1.4E-02
GOES		0753	0808	0831	S11	W18	8976			38	1N	C 7.7						1.2E-02
LEAR		0755	0800	0916	S11	W18	8976	04	29.0	81	1N		4	E		102		FE
HOLL		1607	1615	1623	N19	W48	8971	04	27.0	16	SF		3	E		23		
GOES		1611	1618	1624	N19	W48	8971			13	SF	B 8.2						5.8E-04
GOES		1635	1638	1643	N18	W49	8971			8	SF	B 7.6						3.3E-04
HOLL		1636	1638	1646	N18	W49	8971	04	27.0	10	SF		3	E		18		
GOES		1843	1851	1854	S12	W47	8970			11	SF	B 5.8						3.4E-04
HOLL		1851	1851	1856	S12	W47	8970	04	27.2	5	SF		3	E		13		
GOES		2013	2029	2037						24		C 1.1						1.2E-03
GOES		2043	2045	2049	N18	W49	8971			6	SF	B 7.9						2.7E-04
HOLL		2045	2045	2052	N18	W49	8971	04	27.1	7	SF		3	E		15		
HOLL		2127	2131	2141	S22	E46		05	4.4	14	SF		3	E		13		
HOLL		2222	2231	2239	N21	W42	8971	04	27.7	17	SF		3	E		47		
HOLL		2248	2307	2322	S22	E46		05	4.5	34	SF		3	E		16		
HOLL		2350	2356	2407	S22	E45		05	4.4	17	SF		3	E		12		

SOLAR RADIO EMISSION
Selected Fixed Frequency Events

APRIL 2000

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	8800	SVTO	8	S	0741.0	0741.0	1.0	73.0			QL=4 ST=2 TYP=3
04	2695	SGMR	4	S/F	1517.0	1519.0	35.0	490.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1517.0	1527.0	35.0	180.0			QL=4 ST=3 TYP=3
	2695	SVTO	4	S/F	1517.0	1519.0	42.0	450.0			QL=4 ST=2 TYP=3
	8800	SVTO	20	GRF	1519.0	1527.0	22.0	140.0			QL=2 ST=2 TYP=2
06	2695	LEAR	4	S/F	0221.0	0222.0	6.0	220.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0221.0	0222.0	5.0	180.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0221.0	0222.0	6.0	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0221.0	0222.0	15.0	150.0			QL=2 ST=2 TYP=3
08	8800	LEAR	4	S/F	0237.0	0238.0	7.0	440.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0237.0	0238.0	5.0	160.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0238.0	0238.0	1.0	140.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0238.0	0238.0	2.0	340.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2043.0	2043.0	2.0	140.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2045.0	2046.0	1.0	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2045.0	2045.0	4.0	190.0			QL=4 ST=2 TYP=3
09	2695	SGMR	8	S	1529.0	1529.0	1.0	27.0			QL=4 ST=2 TYP=3
	2695	LEAR	20	GRF	2331.0	2337.0	12.0	170.0			QL=4 ST=2 TYP=2
	2695	PALE	20	GRF	2331.0	2338.0	18.0	210.0			QL=4 ST=2 TYP=2
	8800	LEAR	20	GRF	2334.0	2337.0	16.0	55.0			QL=2 ST=2 TYP=2
	8800	PALE	20	GRF	2343.0	2348.0	11.0	57.0			QL=4 ST=2 TYP=2
10	2695	LEAR	8	S	0020.0	0021.0	2.0	99.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0956.0	0957.0	1.0	63.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0956.0	0956.0	1.0	29.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1909.0	1910.0	2.0	26.0			QL=4 ST=2 TYP=3
12	8800	LEAR	20	GRF	0333.0	0337.0	29.0	35.0			QL=2 ST=2 TYP=2
14	2695	LEAR	4	S/F	0142.0	0144.0	4.0	120.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0143.0	0145.0	3.0	100.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0144.0	0144.0	1.0	31.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	0144.0	0144.0	U	23.0			QL=4 ST=2 TYP=3
15	2695	SVTO	49	GB	1012.0	1016.0	28.0	570.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	1014.0	1016.0	26.0	1300.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	1340.0	1340.0	4.0	50.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1340.0	1340.0	3.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1340.0	1340.0	1.0	110.0			QL=4 ST=3 TYP=3
	8800	SVTO	8	S	1340.0	1340.0	1.0	30.0			QL=4 ST=3 TYP=3
	2695	SVTO	4	S/F	1439.0	1441.0	5.0	40.0			QL=4 ST=3 TYP=3
	2695	SGMR	4	S/F	1440.0	1441.0	4.0	49.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	1900.0	1901.0	5.0	39.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1901.0	1901.0	2.0	36.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1901.0	1901.0	2.0	65.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2139.0	2139.0	4.0	38.0			QL=4 ST=2 TYP=3
16	8800	LEAR	4	S/F	0011.0	0012.0	6.0	53.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	0011.0	0012.0	3.0	53.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0012.0	0012.0	2.0	46.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0554.0	0555.0	1.0	43.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0558.0	0559.0	2.0	36.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0559.0	0559.0	U	29.0			QL=4 ST=2 TYP=3
18	8800	LEAR	8	S	0803.0	0803.0	1.0	120.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0803.0	0803.0	U	37.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0803.0	0803.0	U	26.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0803.0	0803.0	1.0	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1149.0	1149.0	4.0	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1149.0	1150.0	4.0	290.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1149.0	1149.0	3.0	48.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1149.0	1150.0	3.0	230.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1411.0	1411.0	4.0	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1411.0	1411.0	2.0	31.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1411.0	1411.0	2.0	110.0			QL=4 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
Selected Fixed Frequency Events

APRIL 2000

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	2695	SVTO	8 S	1411.0	1411.0	1.0	31.0			QL=4 ST=2 TYP=3
20	2695	LEAR	8 S	0149.0	0150.0	2.0	93.0			QL=2 ST=3 TYP=3
	2695	PALE	8 S	0150.0	0150.0	U	82.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0210.0	0210.0	1.0	46.0			QL=2 ST=2 TYP=3
	2695	PALE	8 S	0211.0	0211.0	2.0	28.0			QL=4 ST=2 TYP=3
	2695	SGMR	46 C	1931.0	1934.0	4.0	46.0			QL=4 ST=3 TYP=8
	2695	PALE	8 S	1932.0	1934.0	2.0	37.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	1934.0	1935.0	1.0	34.0			QL=4 ST=2 TYP=3
24	2695	LEAR	8 S	0335.0	0335.0	U	36.0			QL=4 ST=2 TYP=3
26	8800	SVTO	8 S	0920.0	0920.0	1.0	44.0			QL=4 ST=2 TYP=3
27	8800	LEAR	8 S	0550.0	0550.0	1.0	120.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0550.0	0550.0	U	84.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0650.0	0650.0	2.0	56.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0650.0	0650.0	1.0	52.0			QL=4 ST=2 TYP=3
29	8800	LEAR	8 S	0526.0	0526.0	2.0	71.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0526.0	0526.0	1.0	58.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1146.0	1147.0	8.0	28.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1342.0	1342.0	U	31.0			QL=4 ST=2 TYP=3
30	2695	SVTO	48 C	0757.0	0804.0	10.0	69.0			QL=4 ST=2 TYP=8
	2695	LEAR	8 S	0804.0	0804.0	2.0	45.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0818.0	0820.0	2.0	39.0			QL=2 ST=2 TYP=3

Reports are received routinely from the following observatories:
LEAR = Learmonth PALE = Palehua SGMR = Sagamore Hill SVTO = San Vito

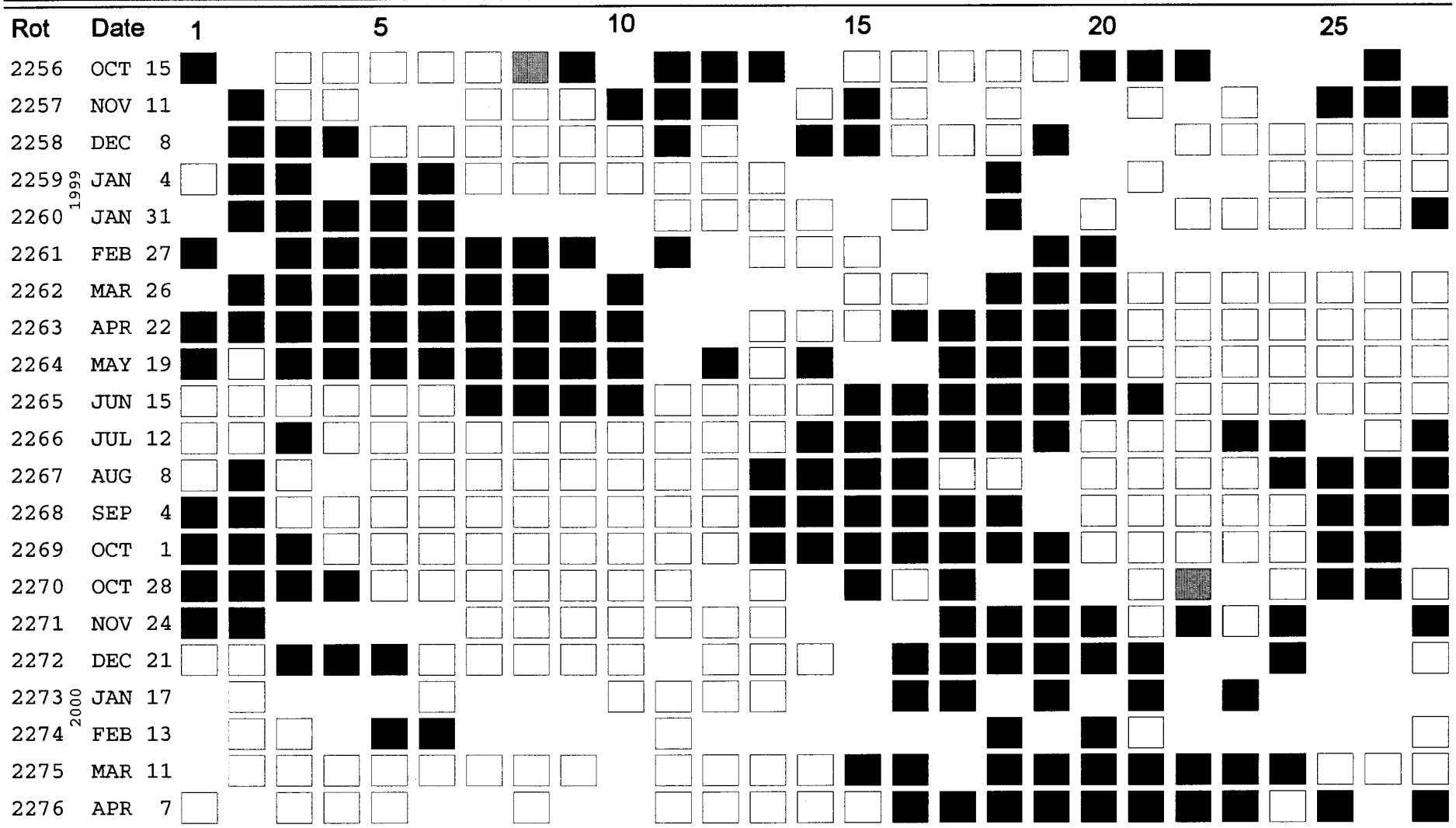
Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precusor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major

1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500 and 200 MHz.

STANFORD MEAN SOLAR MAGNETIC FIELD

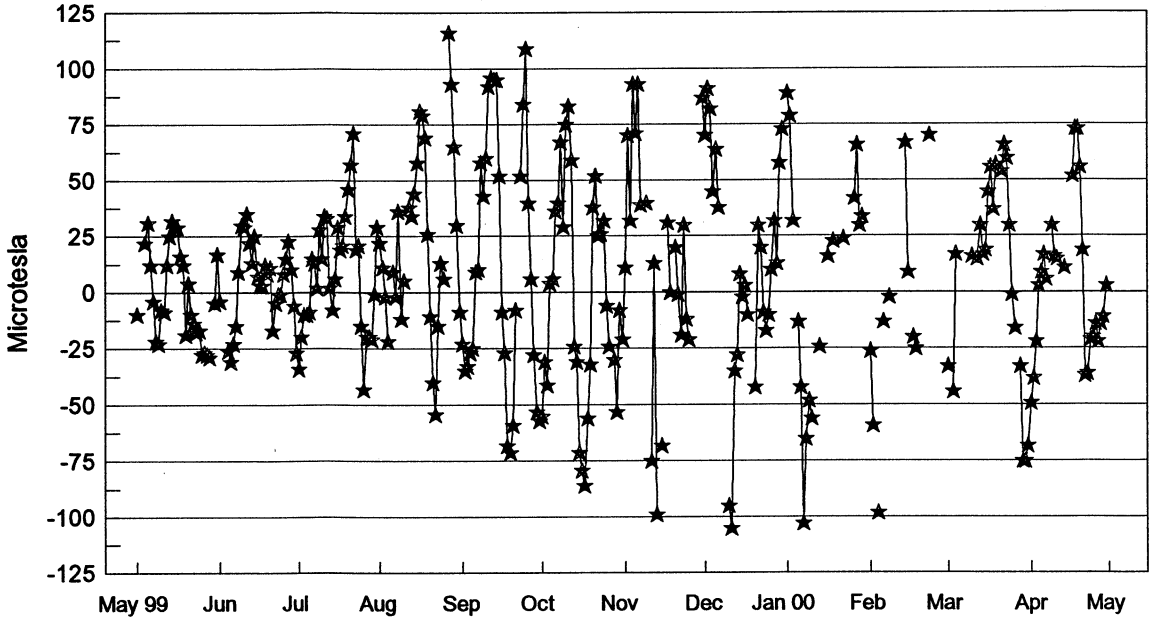


Mean Solar Magnetic Field Polarity: = field > 2 microT; = -2 microT ≤ field ≤ 2 microT

= field < -2 microT; No box = no data available

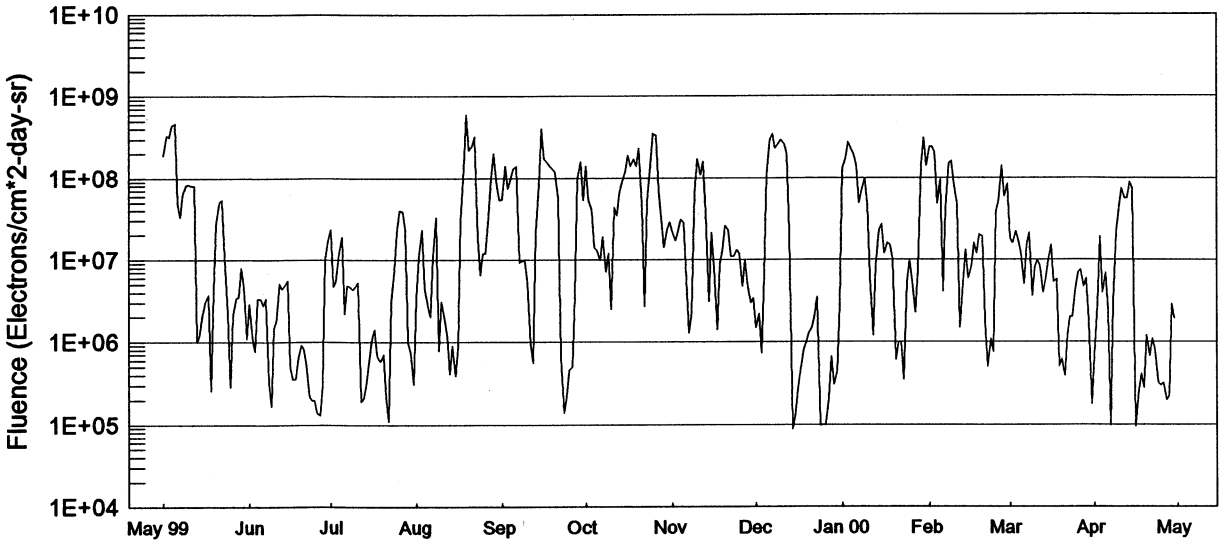
Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

Stanford Mean Solar Magnetic Field (Microtesla)
"Sun-As-A-Star"



Day	May 99	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar	Apr
1	-10	-4	-34	22	-23	-55	11	70	89	-26	-33	-49
2	---	---	-20	11	-35	-31	70	91	79	-59	---	-38
3	---	---	-10	-2	-33	-41	32	82	32	---	-44	-22
4	22	-26	-10	-22	-27	4	93	45	---	-98	17	3
5	31	-31	-9	---	-25	6	71	64	-13	---	---	9
6	12	-23	15	9	9	36	93	38	-42	-13	---	17
7	-4	-15	13	-2	10	40	39	---	-103	---	---	6
8	-22	9	2	36	58	67	---	---	-65	-2	---	---
9	-23	30	28	-12	43	29	40	---	-48	---	---	30
10	-8	29	15	5	60	75	---	-95	-56	---	16	26
11	-9	35	34	---	92	83	-75	-105	---	---	---	15
12	12	22	33	38	96	59	13	-35	---	---	15	---
13	25	13	2	34	95	-24	-99	-28	-24	---	30	---
14	32	25	-8	44	95	-31	---	8	---	67	17	11
15	29	7	6	58	52	-71	-68	-2	---	9	19	---
16	29	3	29	81	-9	-79	---	3	16	---	45	---
17	16	3	19	79	-27	-86	31	-10	---	-20	56	52
18	12	12	21	69	-68	-56	0	---	23	-25	37	73
19	-19	8	34	26	-71	-32	---	---	---	---	57	73
20	4	11	46	-11	-59	38	20	-42	---	---	---	56
21	-10	-17	57	-40	-8	52	-1	30	---	---	54	19
22	-14	-5	71	-54	---	25	-19	20	24	---	66	-37
23	-18	-1	19	-15	52	26	30	-9	---	70	60	-36
24	-17	-1	21	13	84	32	-12	-17	---	---	30	-21
25	-28	8	-15	6	109	-6	-21	-10	---	---	-1	-20
26	-27	15	-43	---	40	-24	---	10	42	---	-16	-14
27	-28	23	-20	116	6	---	---	32	66	---	---	-22
28	-29	10	-20	93	-28	-30	---	13	30	---	-33	-14
29	---	-6	-21	65	-53	-53	---	58	34	---	-75	-11
30	-5	-27	-1	30	-57	-8	87	73	---		-75	3
31	17		29	-9		-21		---	---		-68	

GOES Daily Electron Fluence
May 1999 - Apr 2000



Day	May 99	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar	Apr
1	1.9E+08	2.9E+06	2.3E+07	3.4E+06	5.5E+07	1.4E+08	2.2E+07	1.5E+06	1.3E+08	2.4E+08	1.8E+07	6.8E+05
2	3.3E+08	1.1E+06	4.7E+06	1.1E+07	1.4E+08	5.4E+07	1.7E+07	2.2E+06	1.7E+08	2.4E+08	1.6E+07	2.9E+06
3	3.2E+08	7.7E+05	5.5E+06	2.3E+07	7.5E+07	4.1E+07	2.2E+07	7.3E+05	2.7E+08	2.0E+08	2.2E+07	1.9E+07
4	4.4E+08	3.3E+06	1.2E+07	4.5E+06	9.7E+07	1.4E+07	3.1E+07	6.6E+06	2.3E+08	4.8E+07	1.7E+07	4.0E+06
5	4.6E+08	3.3E+06	1.9E+07	2.8E+06	1.3E+08	1.3E+07	2.8E+07	1.1E+08	1.9E+08	9.6E+07	1.2E+07	6.9E+06
6	4.9E+07	2.8E+06	2.2E+06	2.0E+06	1.4E+08	9.9E+06	5.7E+06	3.0E+08	1.4E+08	4.1E+06	5.1E+06	2.4E+06
7	3.3E+07	3.3E+06	4.8E+06	1.1E+07	9.4E+06	1.9E+07	1.3E+06	3.4E+08	4.9E+07	4.2E+07	1.5E+07	9.7E+04
8	6.4E+07	3.2E+05	4.7E+06	3.3E+07	9.7E+06	7.2E+06	2.2E+06	2.3E+08	7.0E+07	1.5E+08	2.1E+07	3.1E+06
9	8.2E+07	1.7E+05	4.3E+06	7.8E+05	1.0E+07	1.2E+07	6.7E+07	2.6E+08	1.0E+08	1.6E+08	3.6E+06	2.2E+07
10	8.4E+07	1.5E+06	4.7E+06	3.1E+06	5.4E+06	2.5E+06	1.7E+08	2.9E+08	4.7E+07	8.4E+07	8.2E+06	4.1E+07
11	8.0E+07	1.8E+06	5.3E+06	1.9E+06	9.4E+05	4.3E+07	1.1E+08	2.6E+08	6.2E+06	4.7E+07	9.8E+06	7.4E+07
12	8.0E+07	5.1E+06	1.9E+05	1.2E+06	5.6E+05	3.5E+07	1.6E+08	2.0E+08	1.2E+06	1.5E+06	8.5E+06	5.7E+07
13	1.0E+06	4.4E+06	2.1E+05	4.1E+05	2.1E+07	6.8E+07	3.8E+07	2.1E+07	8.6E+06	5.2E+06	4.0E+06	5.7E+07
14	1.2E+06	4.8E+06	3.1E+05	9.1E+05	8.2E+07	9.0E+07	3.1E+06	8.7E+04	2.3E+07	1.3E+07	5.7E+06	8.8E+07
15	2.0E+06	5.6E+06	6.3E+05	3.9E+05	4.0E+08	1.2E+08	2.1E+07	1.3E+05	2.7E+07	6.0E+06	9.4E+06	7.4E+07
16	3.1E+06	5.0E+05	1.1E+06	8.8E+05	1.7E+08	1.9E+08	7.9E+06	2.7E+05	1.2E+07	8.2E+06	1.5E+07	9.3E+04
17	3.7E+06	3.6E+05	1.4E+06	3.0E+07	1.6E+08	1.4E+08	1.4E+06	4.4E+05	1.6E+07	1.6E+07	5.4E+06	2.6E+05
18	2.6E+05	3.6E+05	6.8E+05	1.3E+08	1.4E+08	1.7E+08	8.9E+06	7.9E+05	1.5E+07	1.2E+07	5.8E+06	4.1E+05
19	4.1E+06	6.5E+05	5.9E+05	5.9E+08	1.3E+08	1.4E+08	1.3E+07	9.9E+05	1.0E+07	2.0E+07	5.1E+05	2.8E+05
20	2.8E+07	9.2E+05	7.1E+05	2.2E+08	1.2E+08	2.3E+08	2.6E+07	1.3E+06	6.1E+05	1.9E+07	6.2E+05	1.2E+06
21	5.1E+07	8.2E+05	2.1E+05	2.5E+08	5.7E+07	4.7E+07	2.3E+07	1.5E+06	1.0E+06	1.8E+06	3.9E+05	6.8E+05
22	5.4E+07	5.3E+05	1.1E+05	3.2E+08	6.6E+05	2.7E+06	1.1E+07	2.1E+06	1.0E+06	5.0E+05	1.2E+06	1.1E+06
23	1.1E+07	2.2E+05	3.1E+06	1.9E+07	1.4E+05	5.1E+07	1.1E+07	3.5E+06	3.5E+05	1.1E+06	2.0E+06	8.1E+05
24	2.3E+06	2.0E+05	7.5E+06	6.5E+06	2.2E+05	1.4E+08	1.3E+07	9.7E+04	5.4E+06	7.5E+05	2.0E+06	3.2E+05
25	2.9E+05	2.0E+05	2.2E+07	1.2E+07	4.6E+05	3.5E+08	1.2E+07	1.0E+05	1.0E+07	3.8E+07	4.6E+06	3.0E+05
26	2.1E+06	1.4E+05	4.0E+07	1.2E+07	5.0E+05	3.3E+08	4.7E+06	1.0E+05	5.5E+06	5.2E+07	7.0E+06	3.2E+05
27	3.4E+06	1.3E+05	3.9E+07	3.5E+07	3.7E+06	7.2E+07	1.0E+07	2.1E+05	2.3E+06	1.4E+08	7.5E+06	2.0E+05
28	3.5E+06	3.0E+05	2.3E+07	1.0E+08	9.9E+07	3.2E+07	4.9E+06	6.7E+05	7.4E+06	6.0E+07	4.7E+06	2.3E+05
29	8.0E+06	1.0E+07	9.8E+05	2.0E+08	1.6E+08	1.4E+07	3.0E+06	3.1E+05	1.4E+08	8.3E+07	5.9E+06	2.9E+06
30	4.7E+06	1.8E+07	7.5E+05	8.2E+07	5.4E+07	2.3E+07	3.4E+06	4.4E+05	3.1E+08		1.8E+06	1.9E+06
31	1.1E+06		3.1E+05	5.4E+07		2.9E+07		2.8E+06	1.4E+08		1.8E+05	

NOTE: The electron detector responds significantly to protons above 32 MeV; therefore, electron data are contaminated when a proton event is in progress. These days are indicated with '-999' in the table and are not plotted. '--' indicates data not available.

NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES8 is primary satellite as of 27 July, 1998.

CONTENTS

Prompt Reports — Number 669 Part I

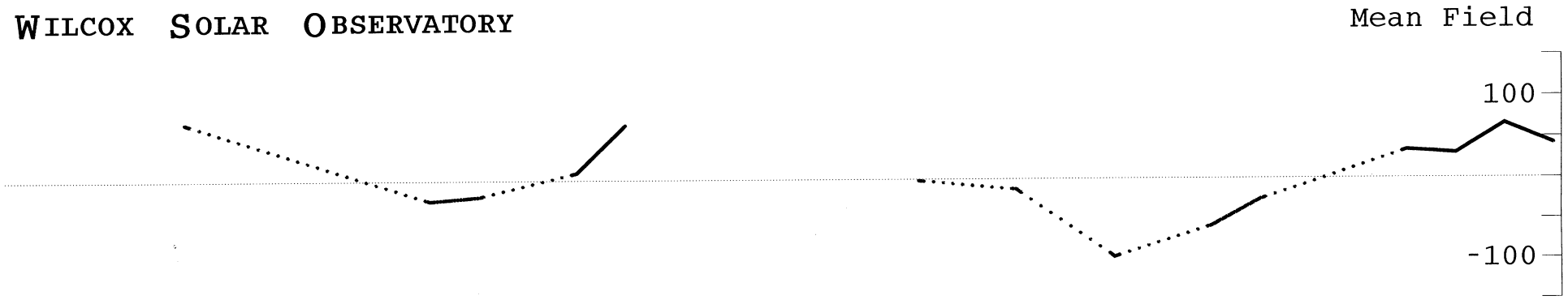
DATA FOR MARCH 2000

SOLAR MAGNETIC FIELD SYNOPTIC CHART

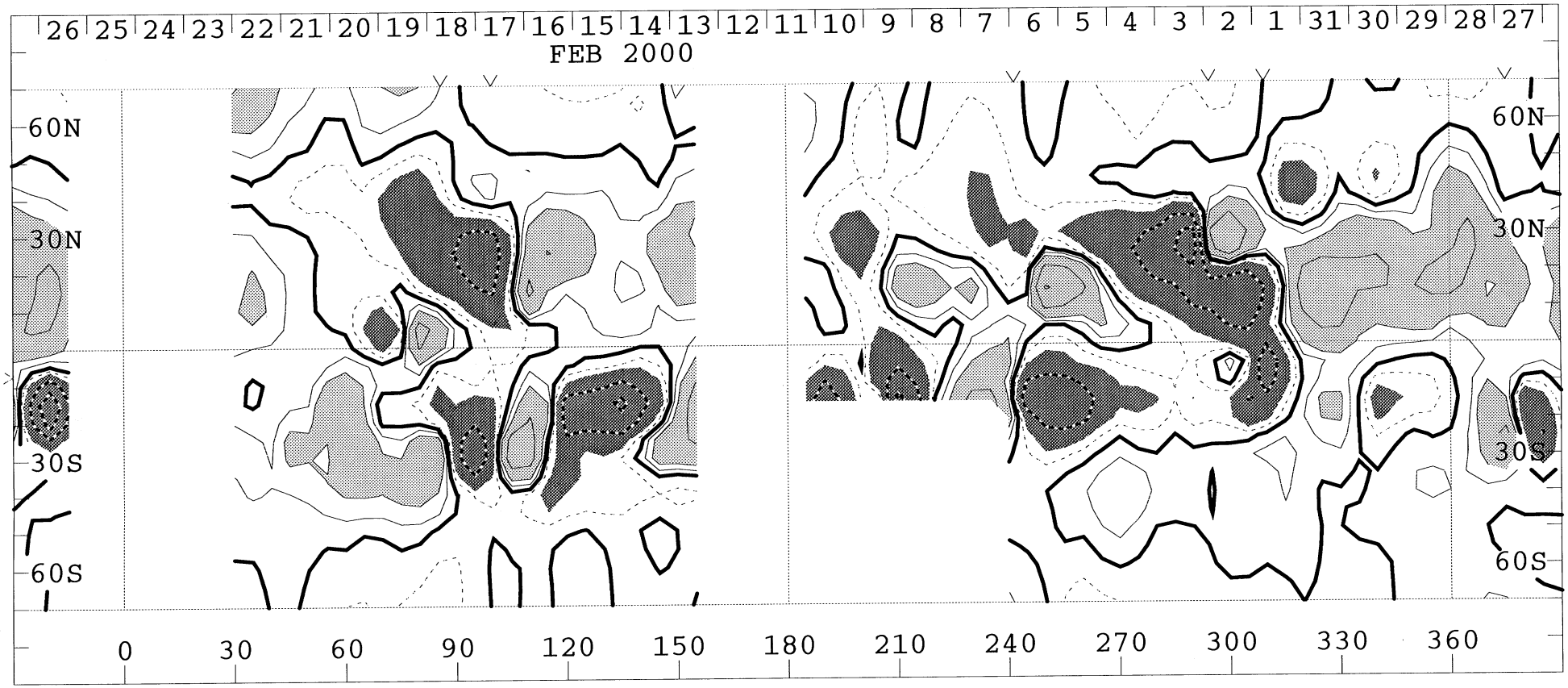
CARRINGTON ROTATION NUMBER 1959

(28 January to 25 February 2000)

WILCOX SOLAR OBSERVATORY



WSO - Photospheric Magnetic Field 0, ±100, 200, 500, 1000, 2000 MicroTesla



Heliographic Longitude

1959

SOLAR MAGNETIC FIELD SYNOPTIC CHART

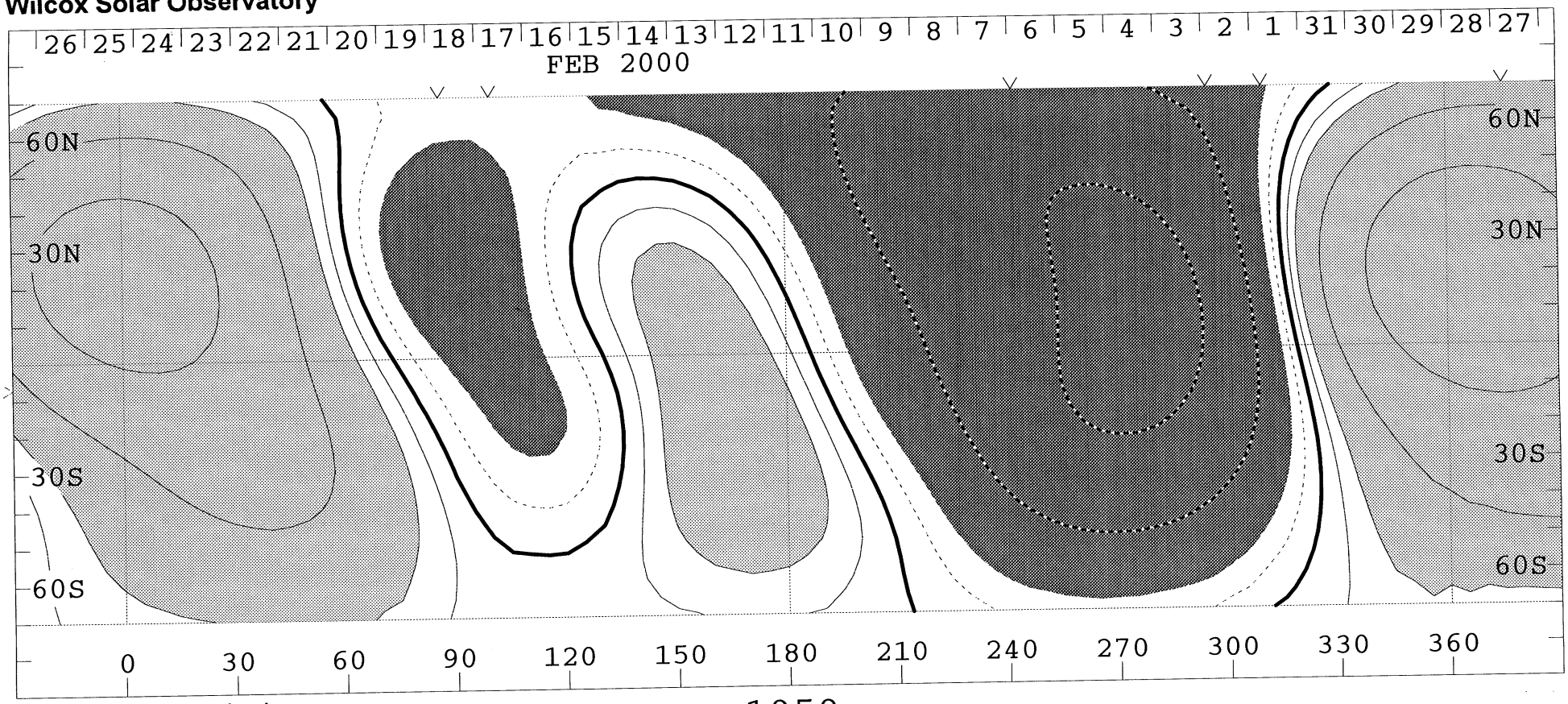
SOURCE SURFACE FIELD

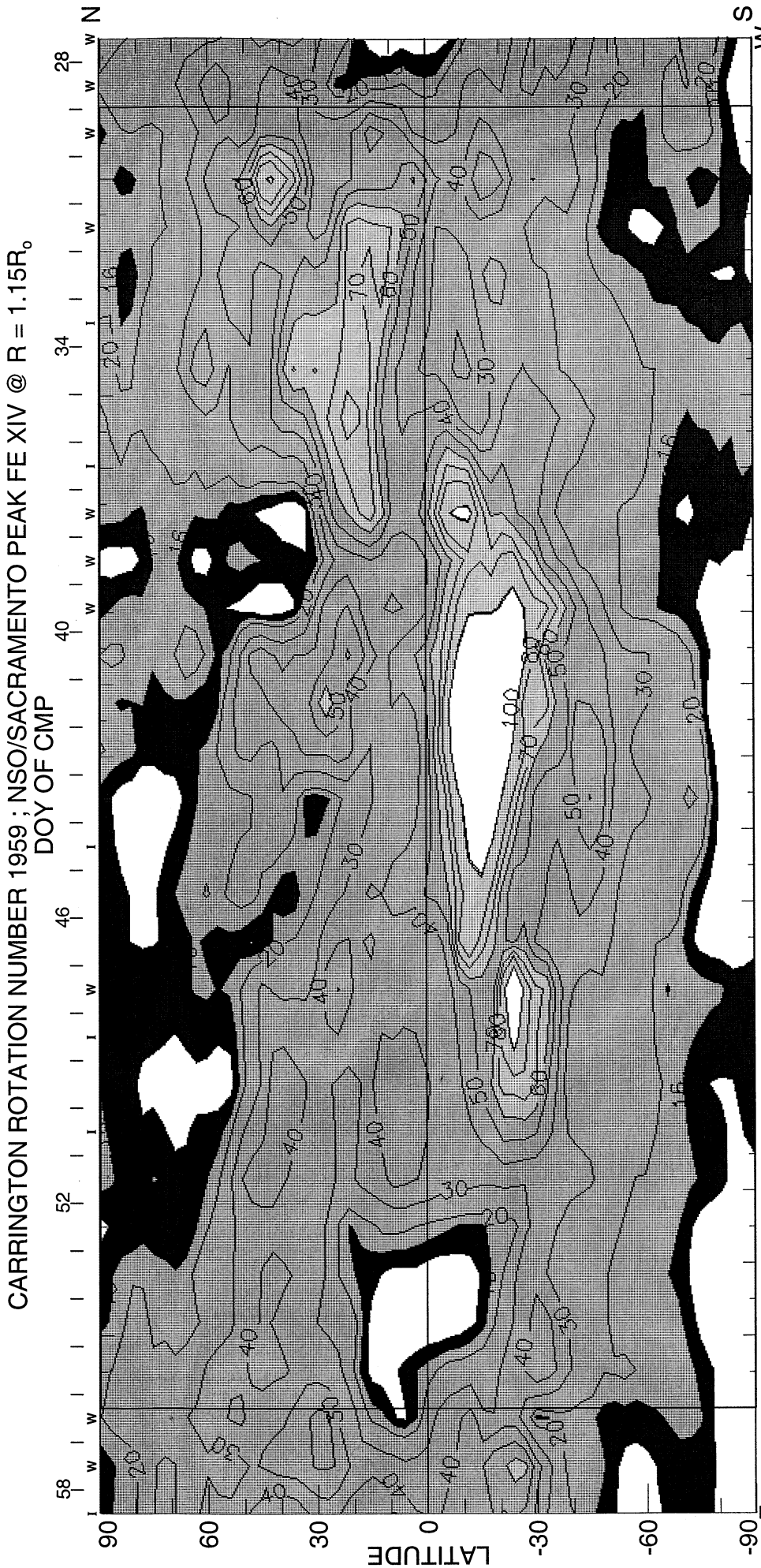
CARRINGTON ROTATION NUMBER 1959

(28 January to 25 February 2000)

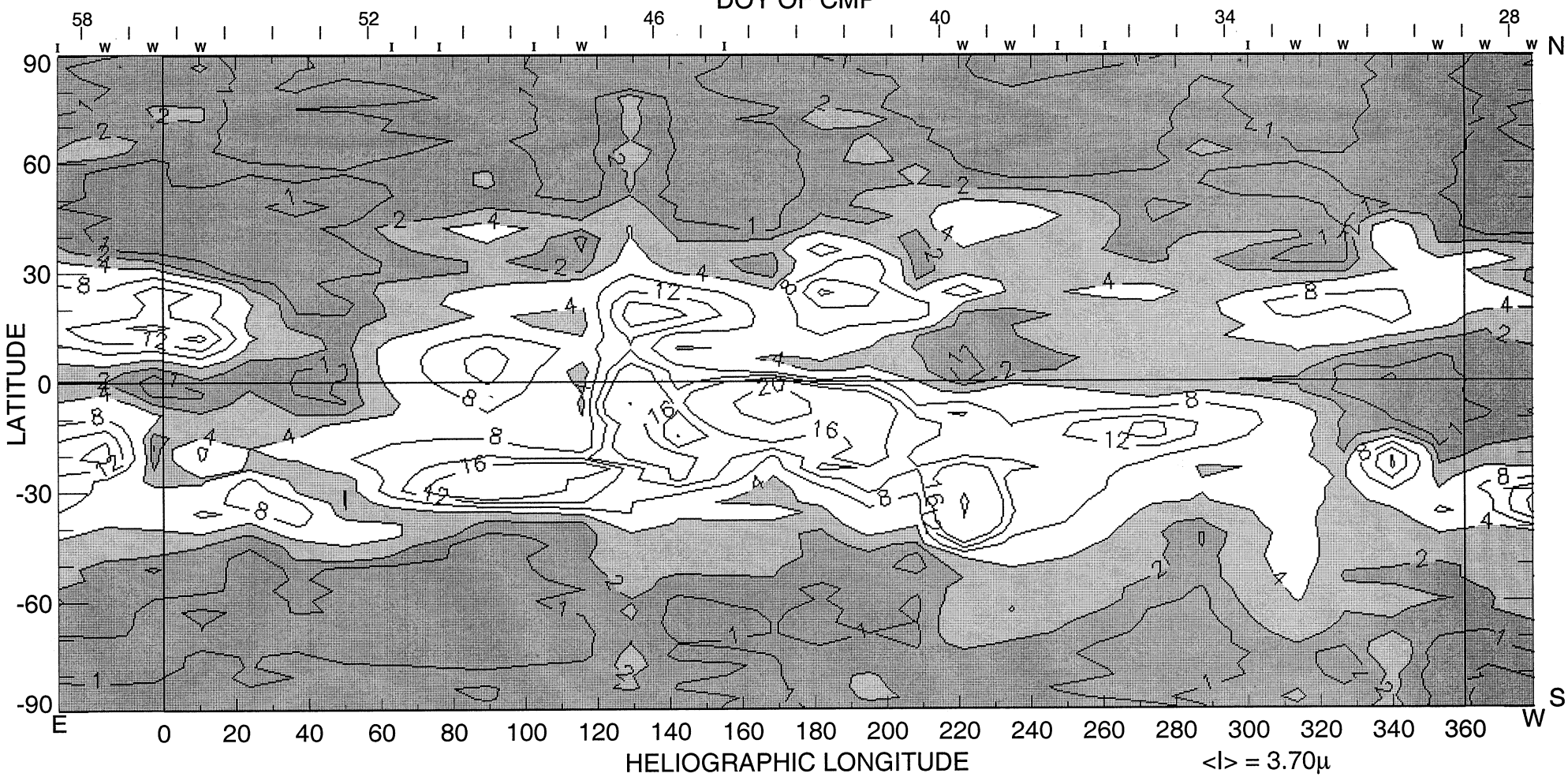
Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla




CARRINGTON ROTATION NUMBER 1959 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R$_o$
DOY OF CMP
LATITUDE
HELIOGRAPHIC LONGITUDE
<I> = 30.64μ
1999 E+W LIMB CONTOURS: 12, 16, 20, 30, 40, 50, 60, 70, 80, 99 MILLIONTHS OF I$_o$
CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK
(19-May-00)
N
S
E
W

CARRINGTON ROTATION NUMBER 1959 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o

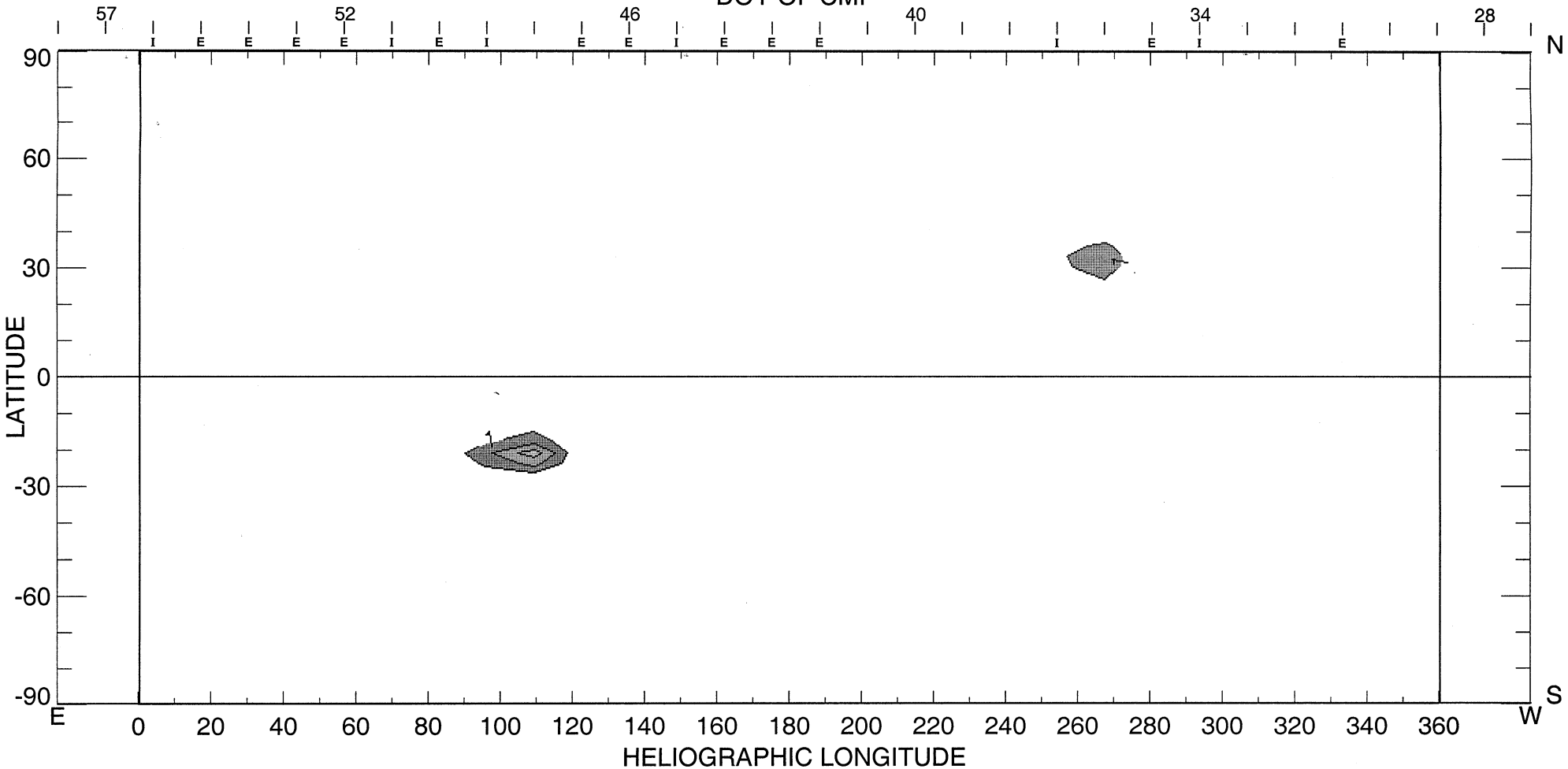


<I> = 3.70μ

(19-May-00)

1999 E+W LIMB CONTOURS: 1, 2, 4, 8, 12, 16, 32, 48 MILLIONTHS OF I_o

CARRINGTON ROTATION NUMBER 1959 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R_o



(19-May-00) 2000 W+E LIMB CONTOURS: YELMIN, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I_o

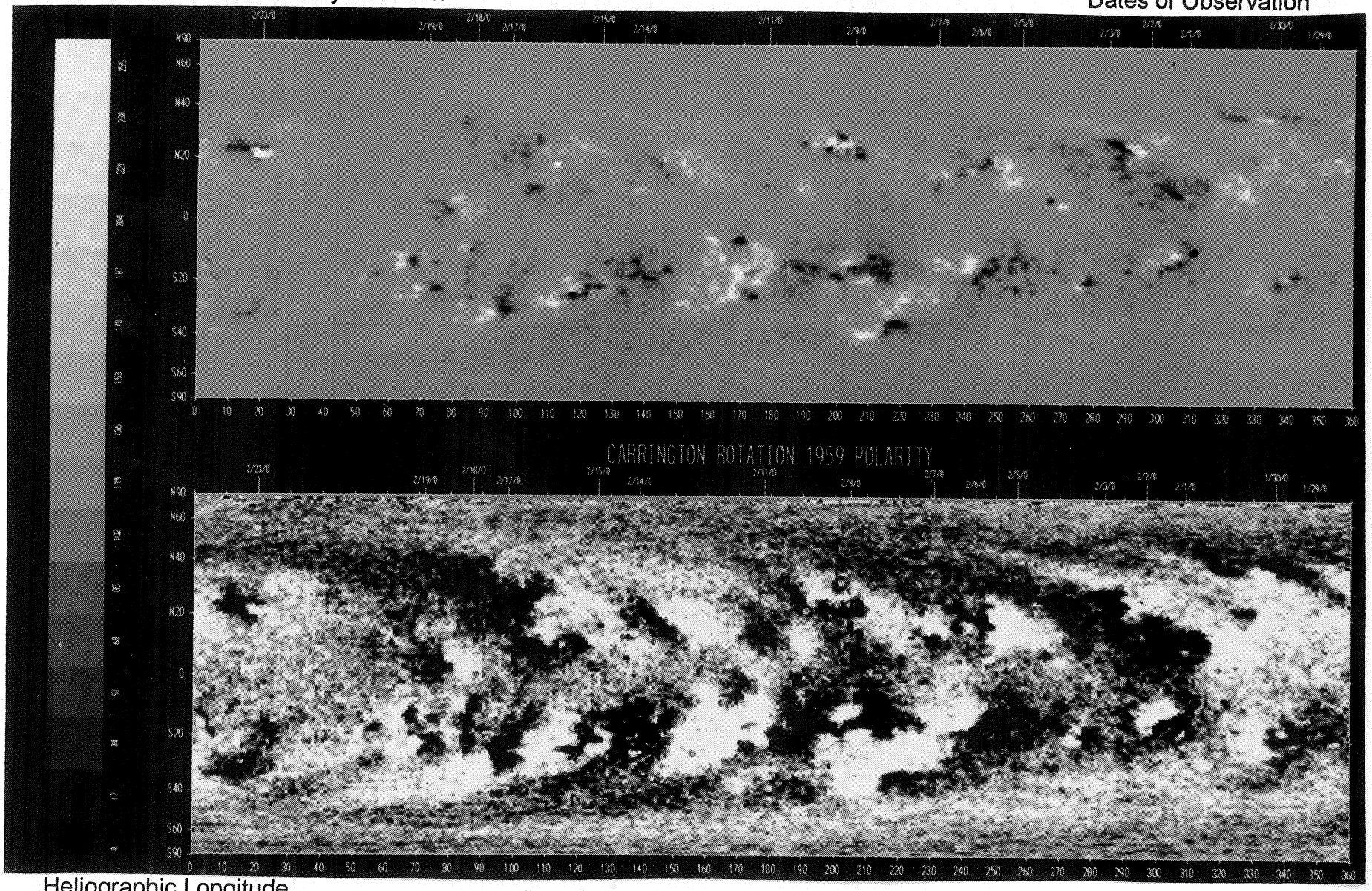
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1959

(28 January to 25 February 2000)

National Solar Observatory/Kitt Peak

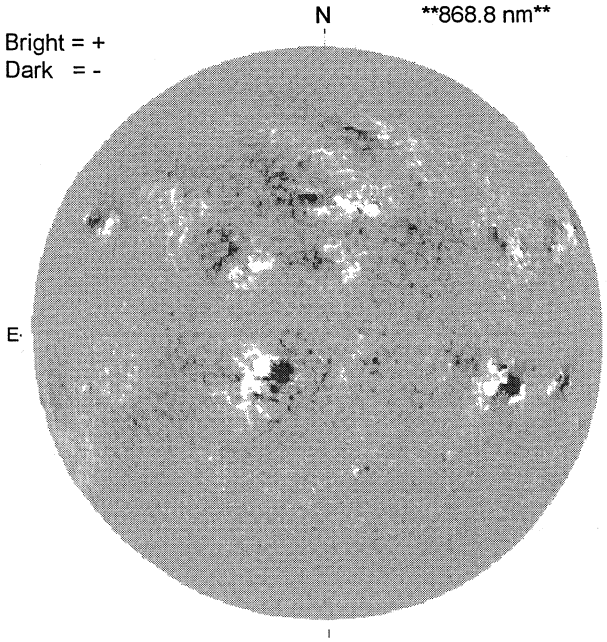
Dates of Observation



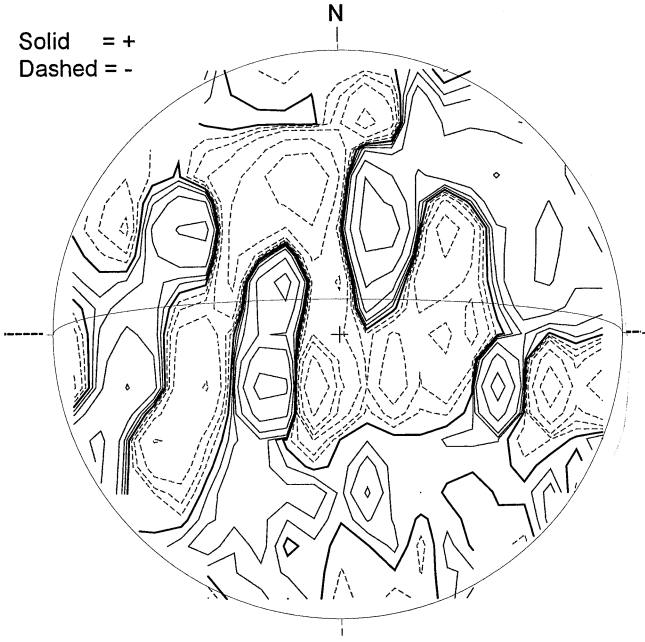
Heliographic Longitude

MARCH 1, 2000 (P= -21.61, Bo = -7.22, Lo = 297.93)

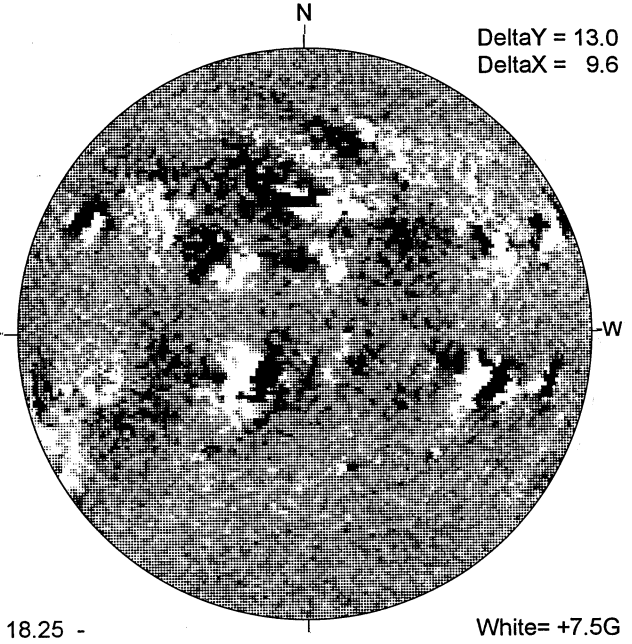
KITT PEAK MAGNETOGRAM



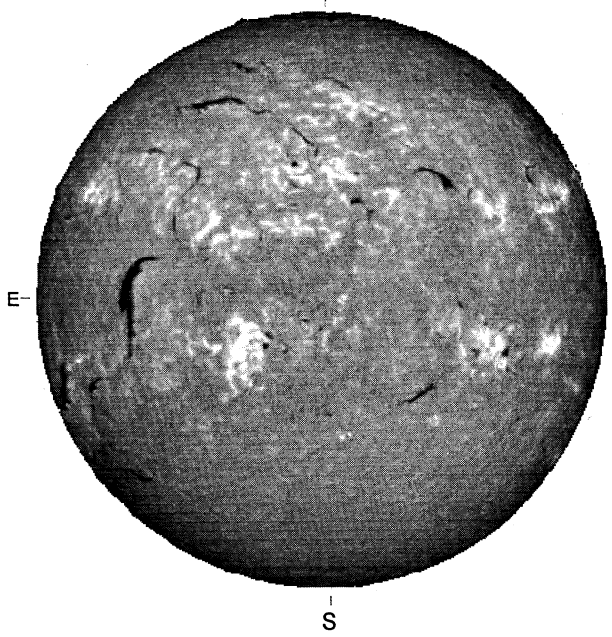
STANFORD MAGNETOGRAM



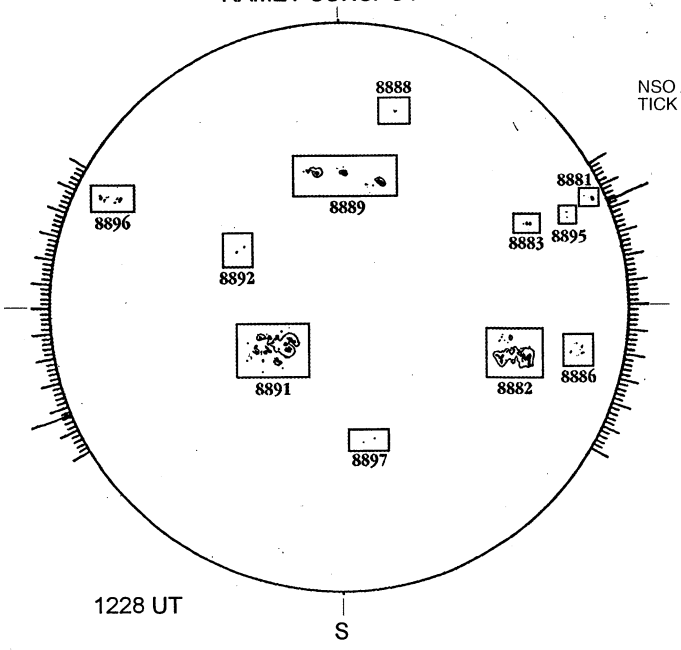
MT. WILSON MAGNETOGRAM



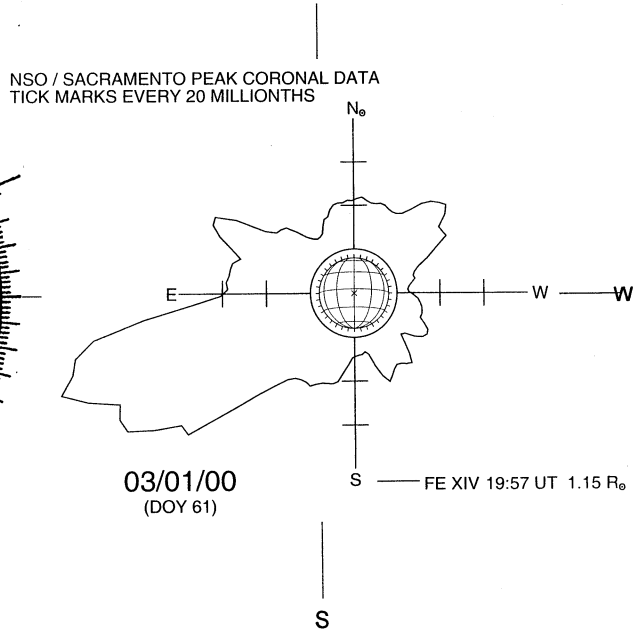
MEUDON H-ALPHA



RAMEY SUNSPOT

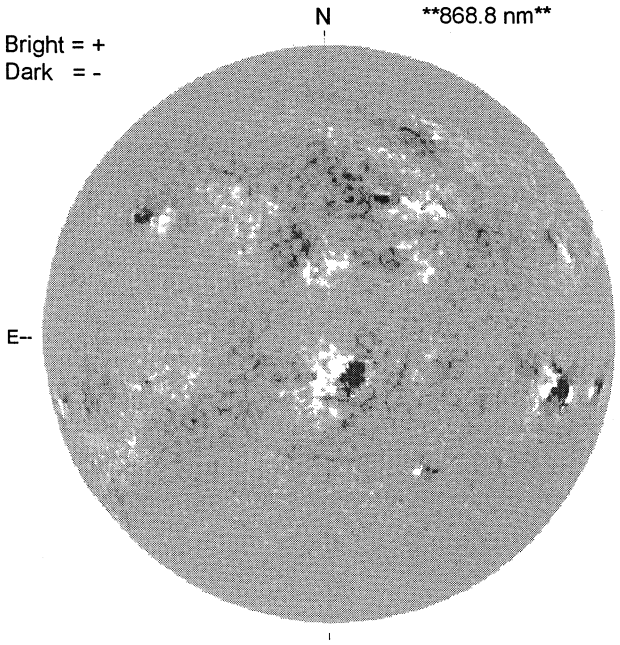


SACRAMENTO PEAK CORONA (1.15 Radii)----



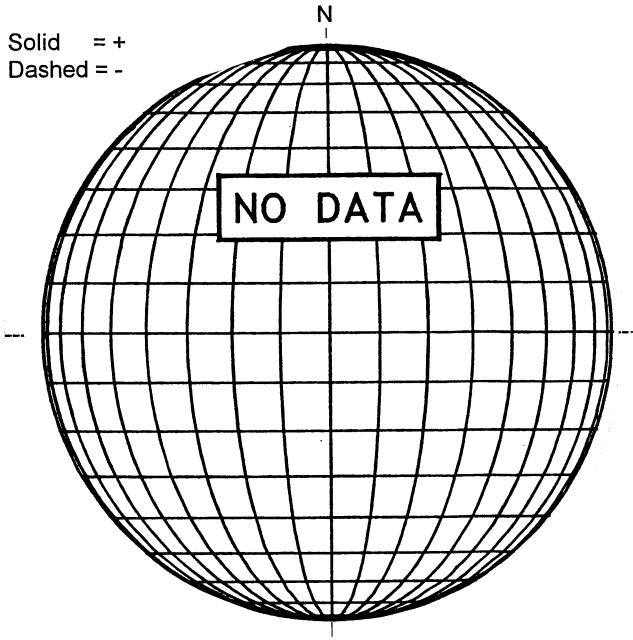
MARCH 2, 2000 (P= -21.86, Bo = -7.23, Lo = 284.75)

KITT PEAK MAGNETOGRAM

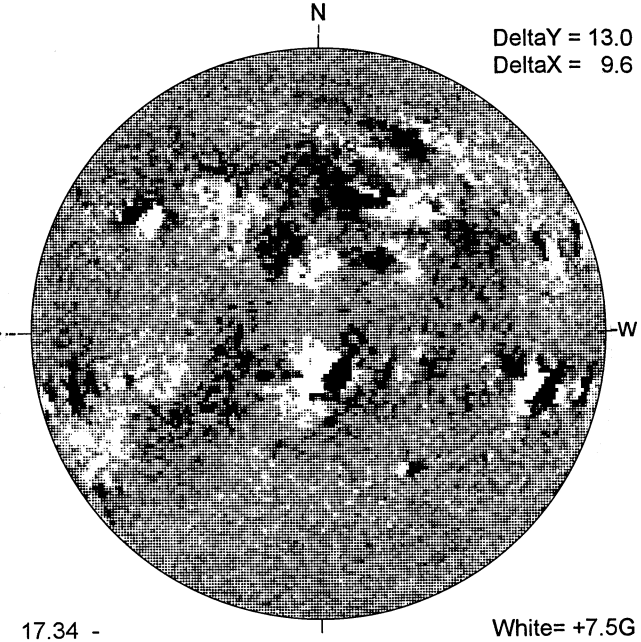


1739 UT

STANFORD MAGNETOGRAM



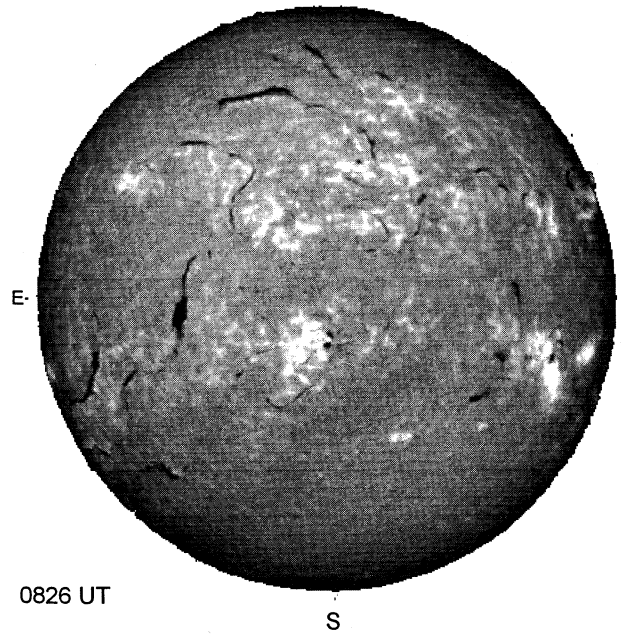
MT. WILSON MAGNETOGRAM



17.34 -
18.31 UT

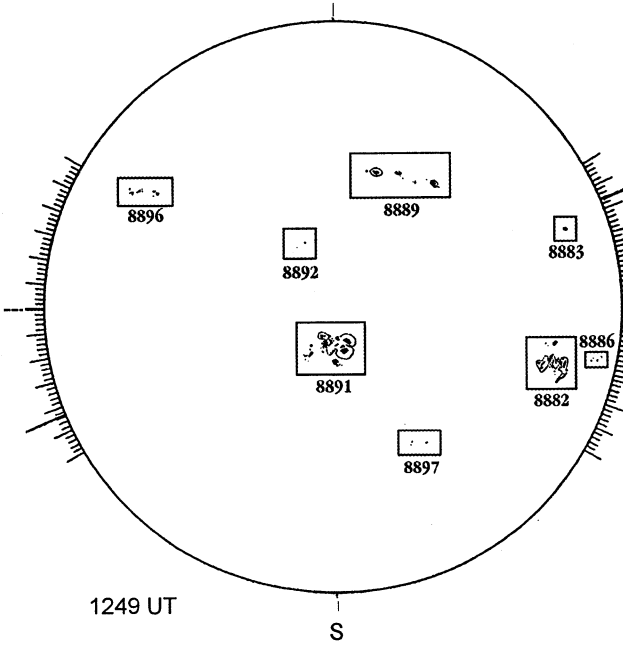
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



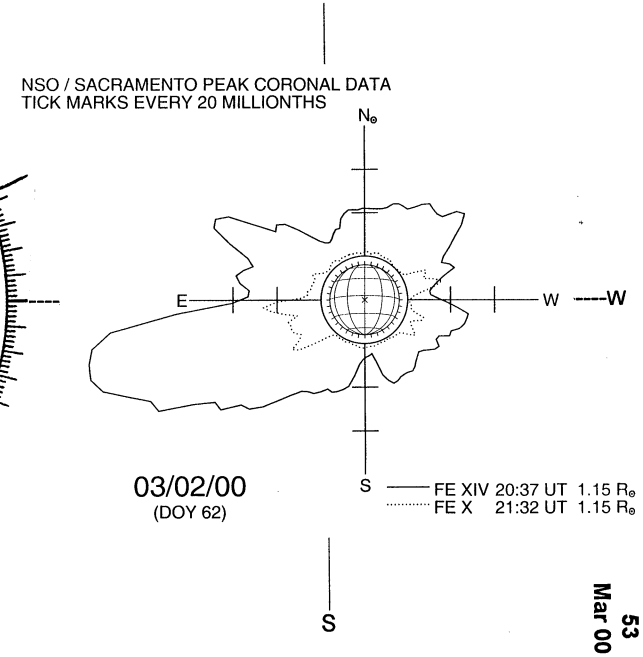
0826 UT

RAMEY SUNSPOT



1249 UT

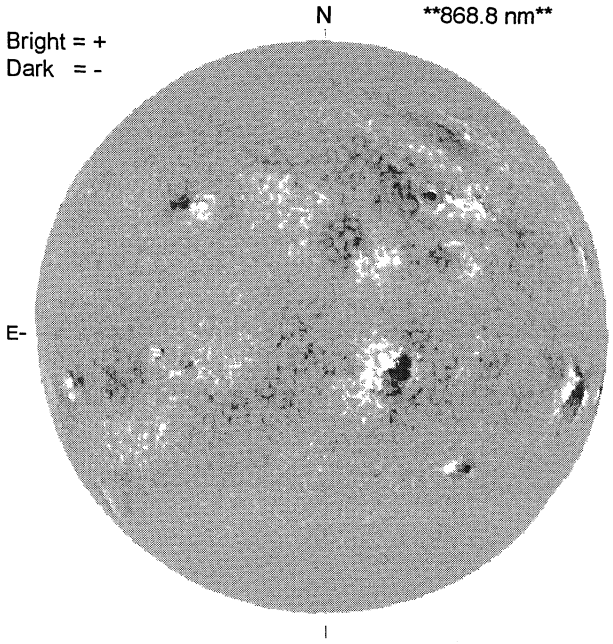
SACRAMENTO PEAK CORONA (1.15 Radii)----



03/02/00
(DOY 62)

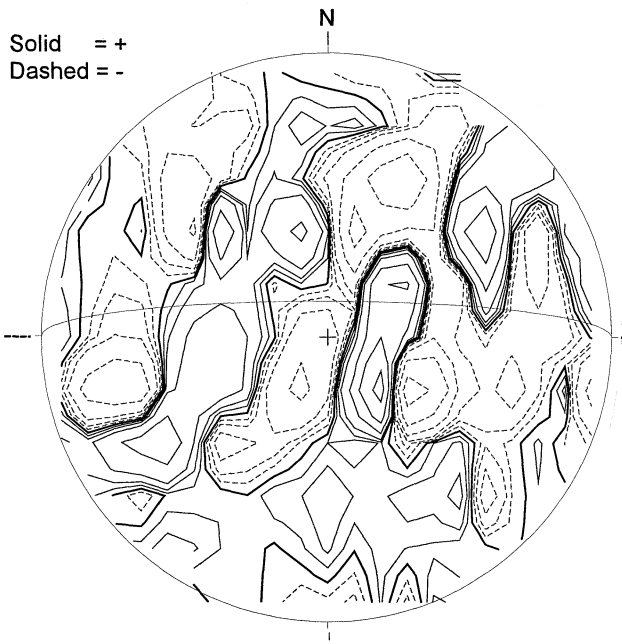
MARCH 3, 2000 (P= -22.10, Bo = -7.24, Lo = 271.58)

KITT PEAK MAGNETOGRAM



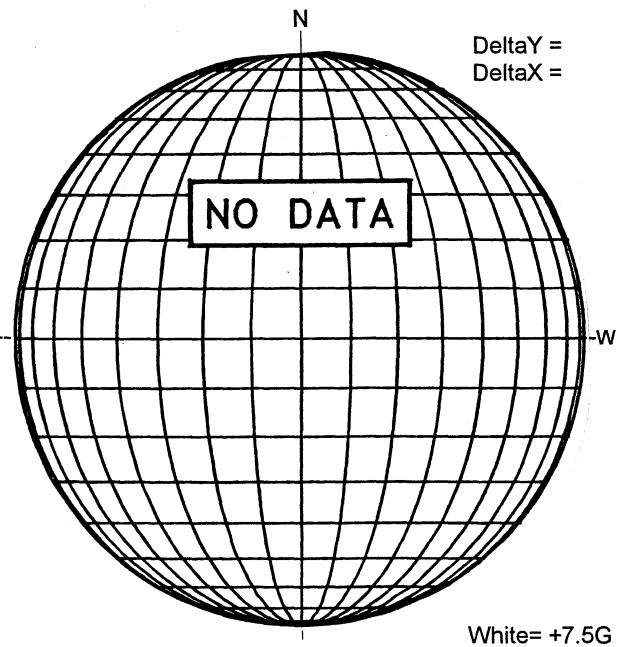
1530 UT

STANFORD MAGNETOGRAM

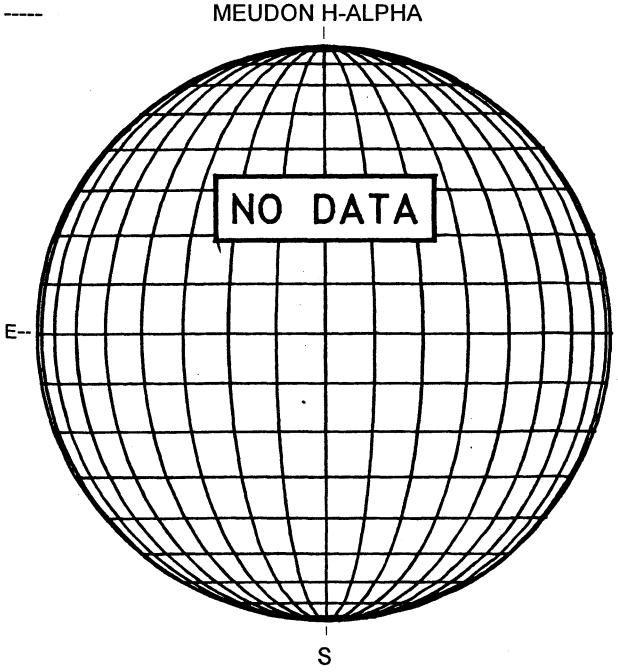


1750 UT

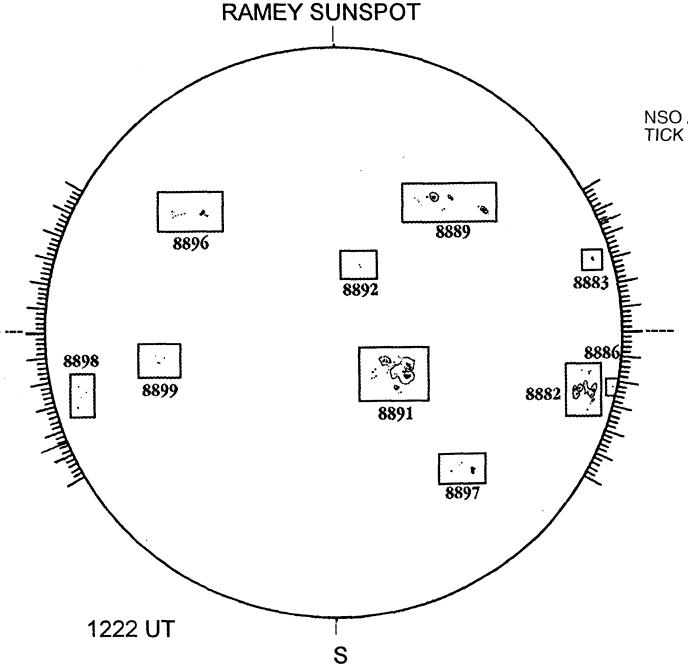
MT. WILSON MAGNETOGRAM



MEUDON H-ALPHA

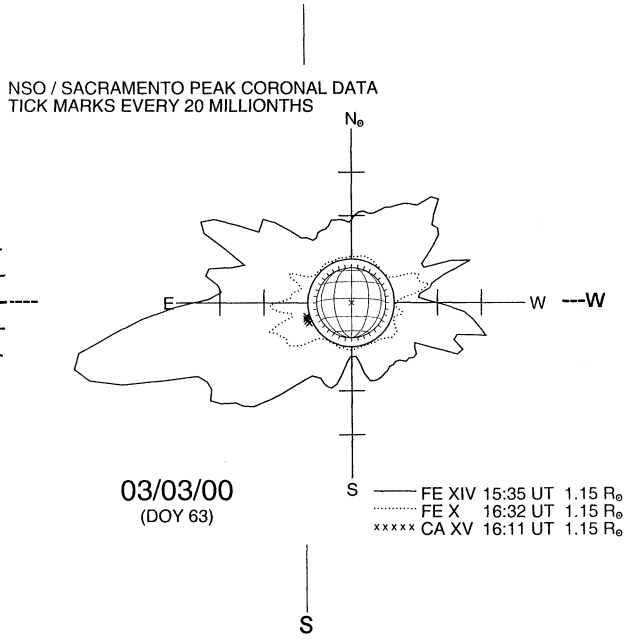


RAMEY SUNSPOT



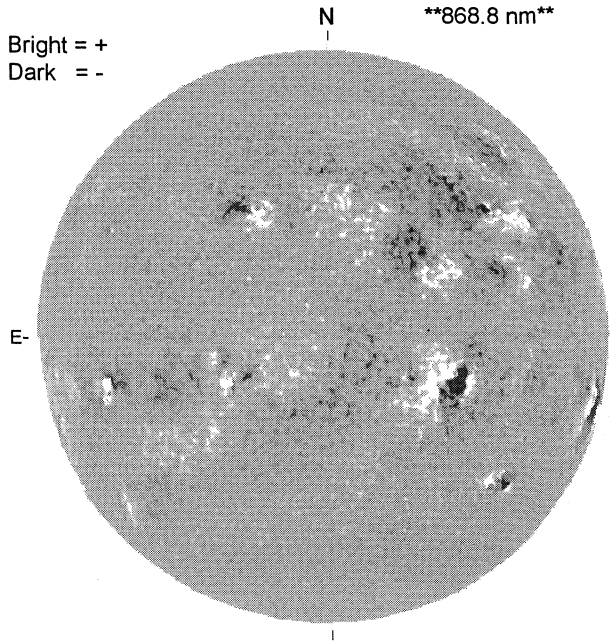
1222 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



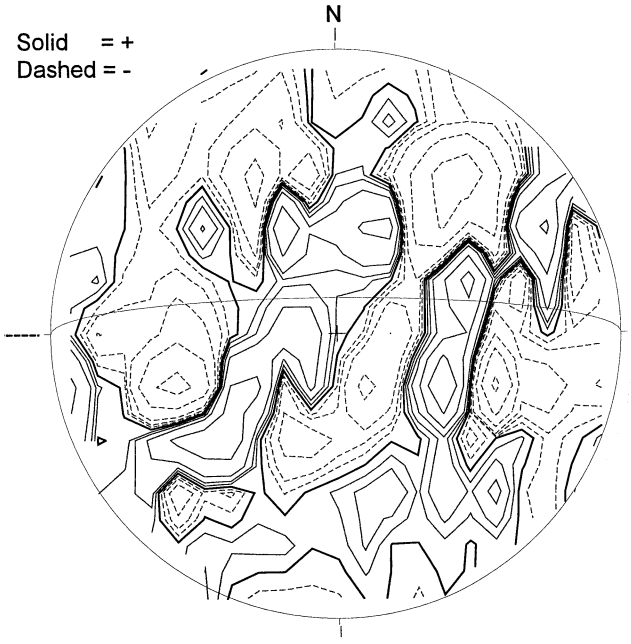
MARCH 4, 2000 (P= -22.34, Bo = -7.25, Lo = 258.41)

KITT PEAK MAGNETOGRAM



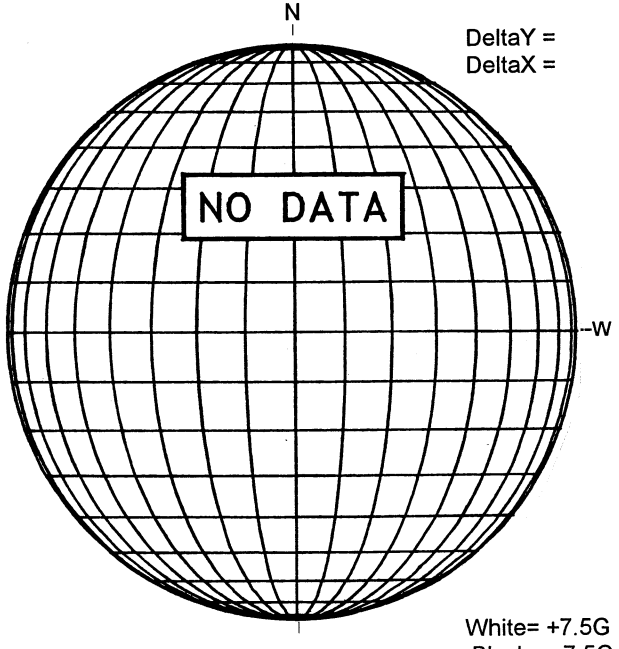
1510 UT

STANFORD MAGNETOGRAM

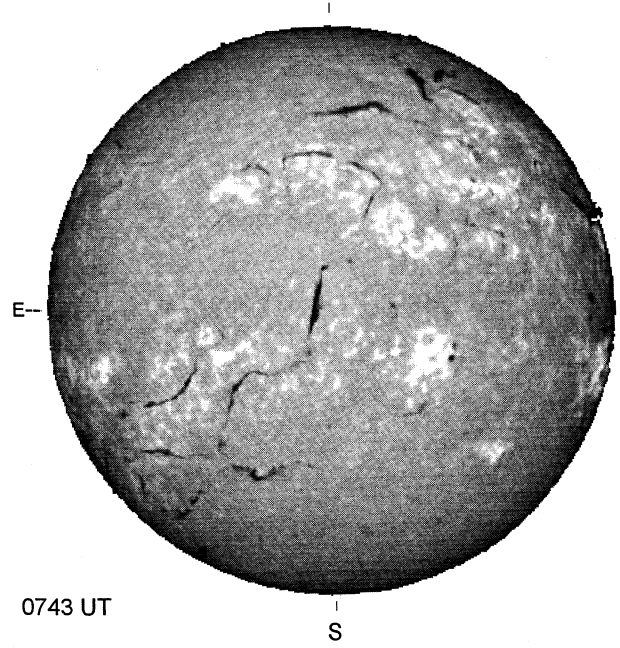


1845 UT

MT. WILSON MAGNETOGRAM

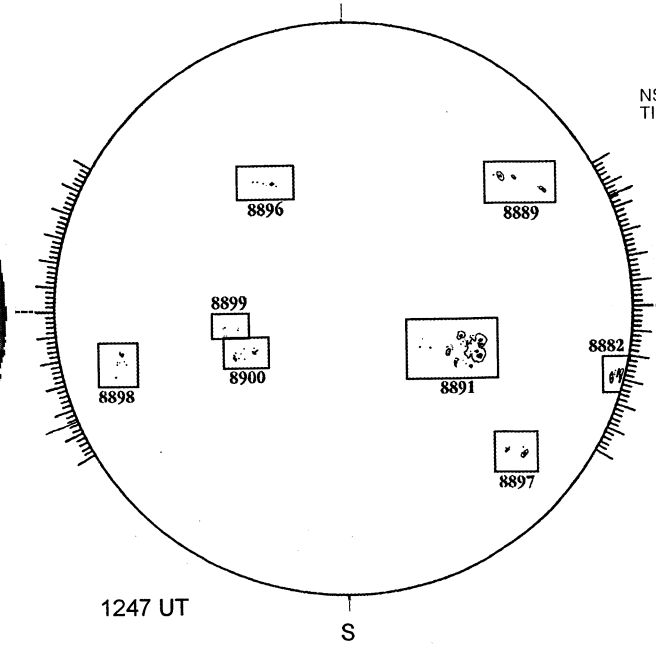


MEUDON H-ALPHA



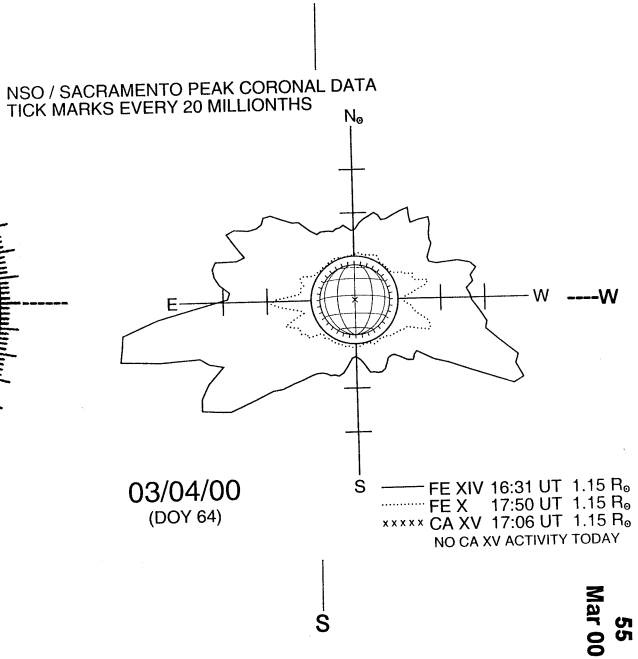
0743 UT

RAMEY SUNSPOT



1247 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



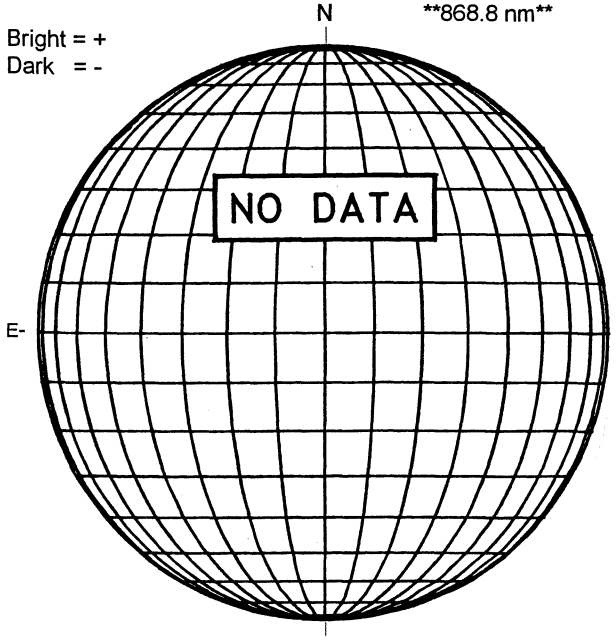
55
Mar 00

MARCH 5, 2000 (P= -22.56, Bo = -7.25, Lo = 245.23)

KITT PEAK MAGNETOGRAM

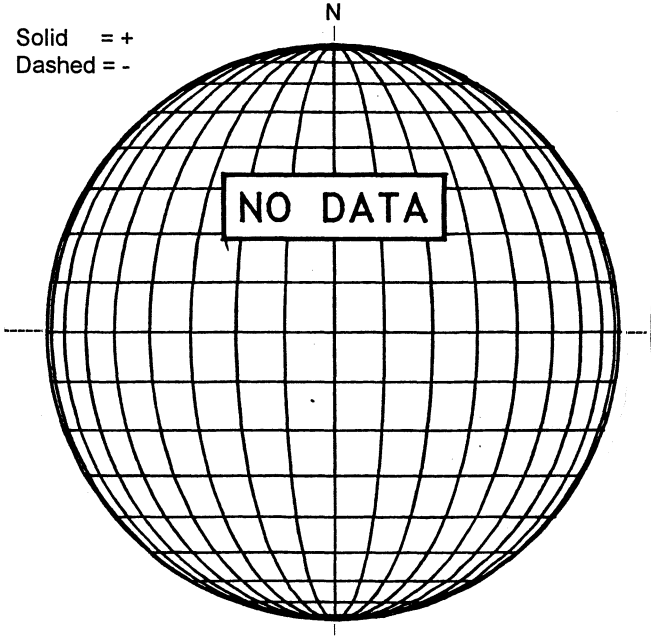
868.8 nm

Bright = +
Dark = -



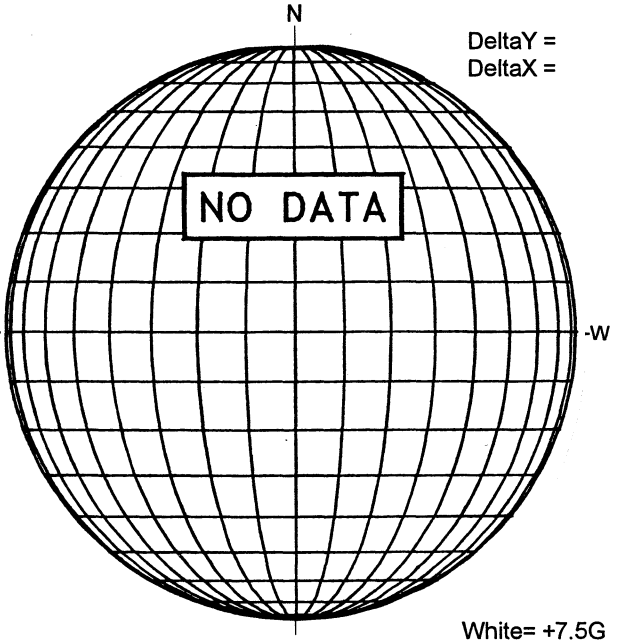
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



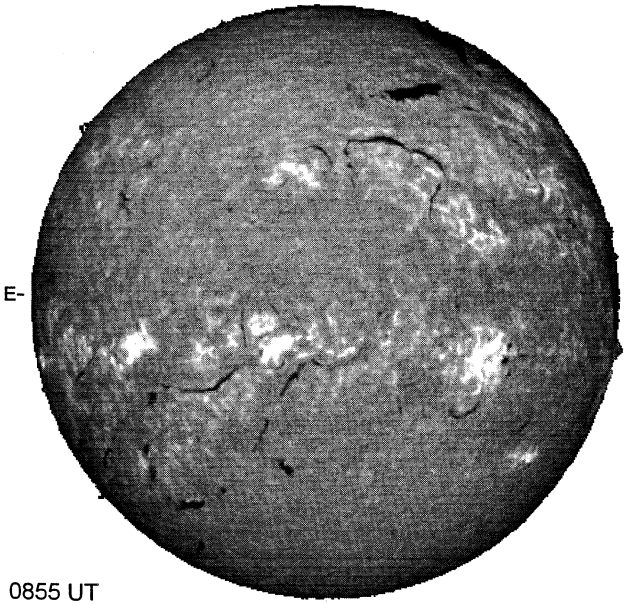
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



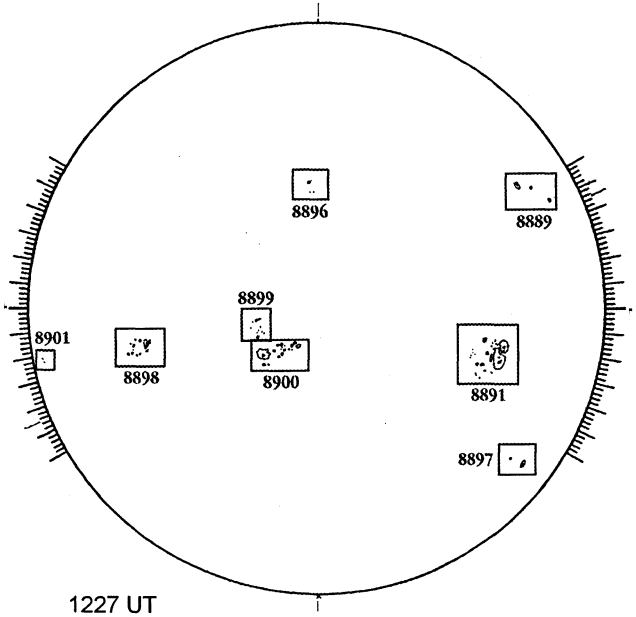
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



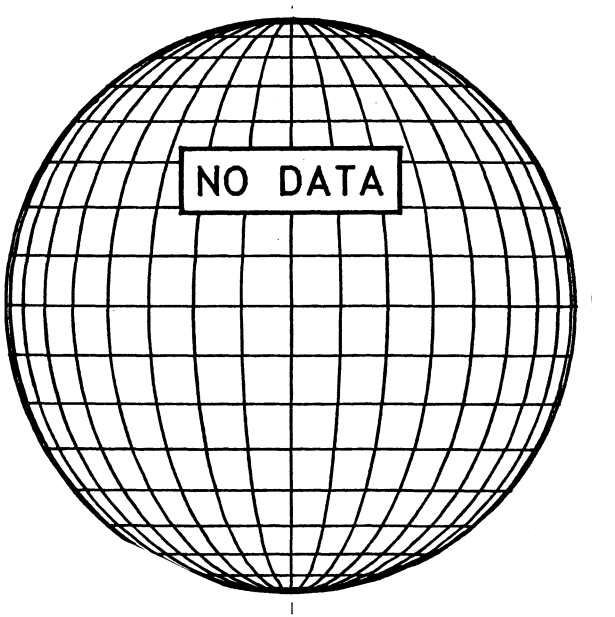
0855 UT

RAMEY SUNSPOT



1227 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



MARCH 6, 2000 (P= -22.78, Bo = -7.25, Lo = 232.06)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -

NO DATA

E--

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

NO DATA

MT. WILSON MAGNETOGRAM

N

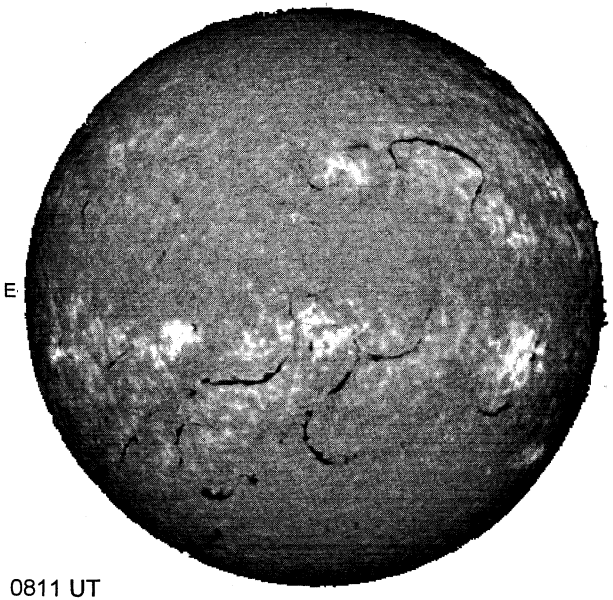
DeltaY =
DeltaX =

NO DATA

-W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

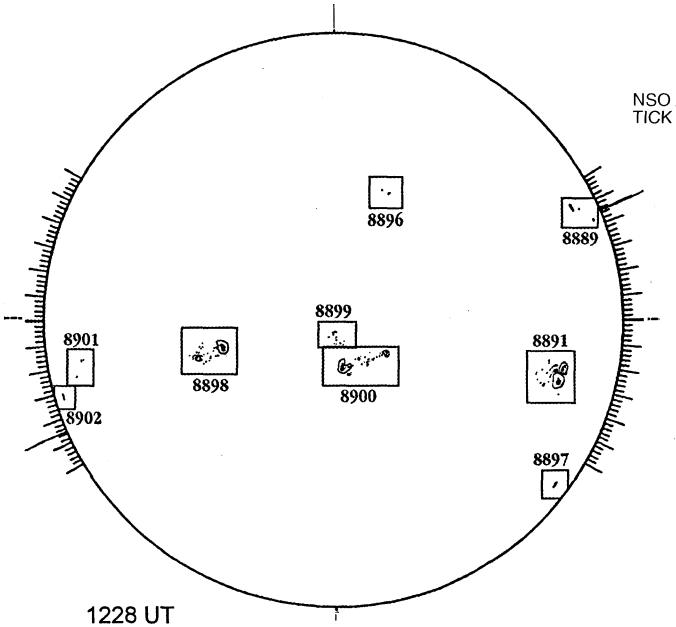


E

0811 UT

S

RAMEY SUNSPOT

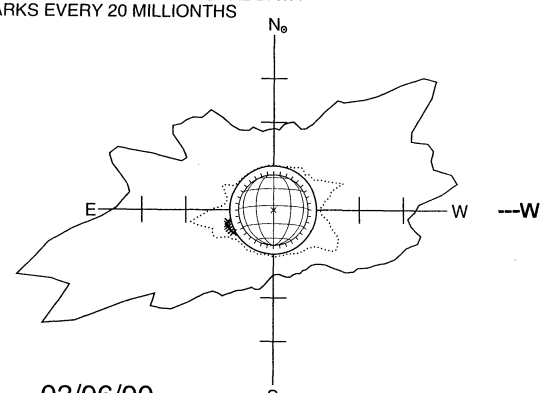


1228 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



---W

03/06/00
(DOY 66)

FE XIV 16:30 UT 1.15 R⊙
FE X 18:28 UT 1.15 R⊙
xxxxx CA XV 17:58 UT 1.15 R⊙

S

57
Mar 00

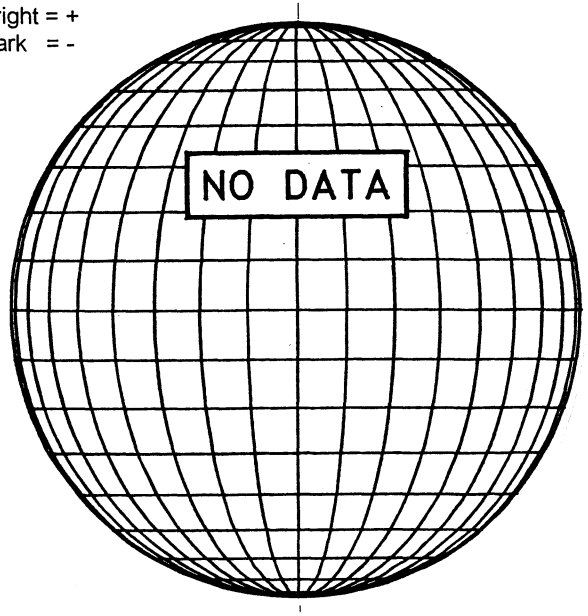
MARCH 7, 2000 (P= -23.00, Bo = -7.25, Lo = 218.88)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -

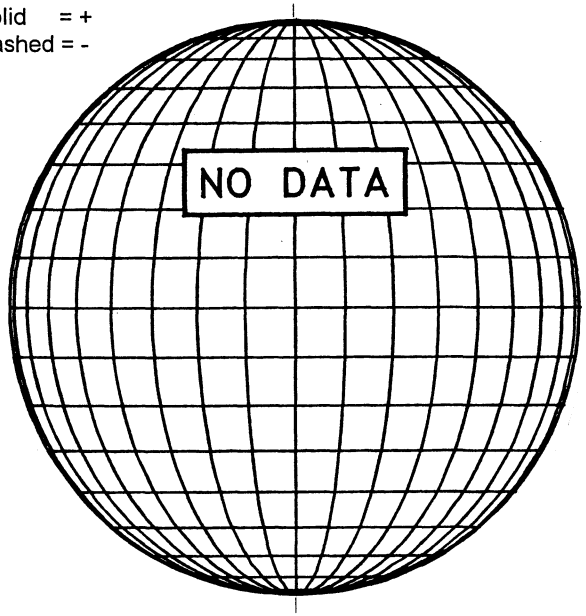


E-

STANFORD MAGNETOGRAM

N

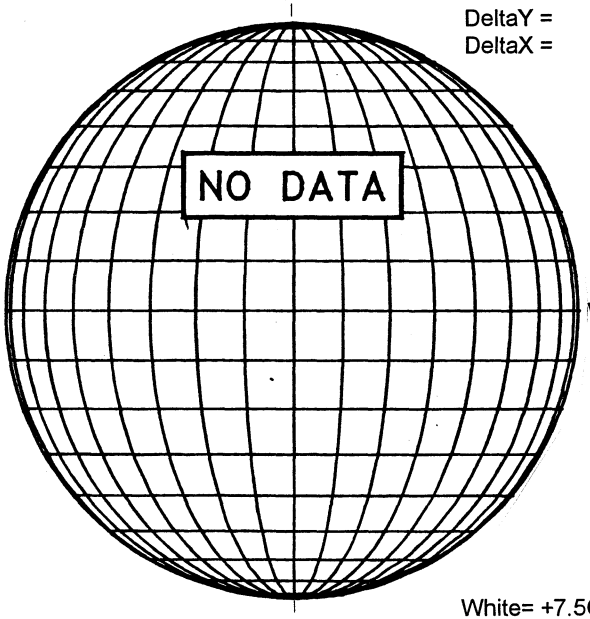
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

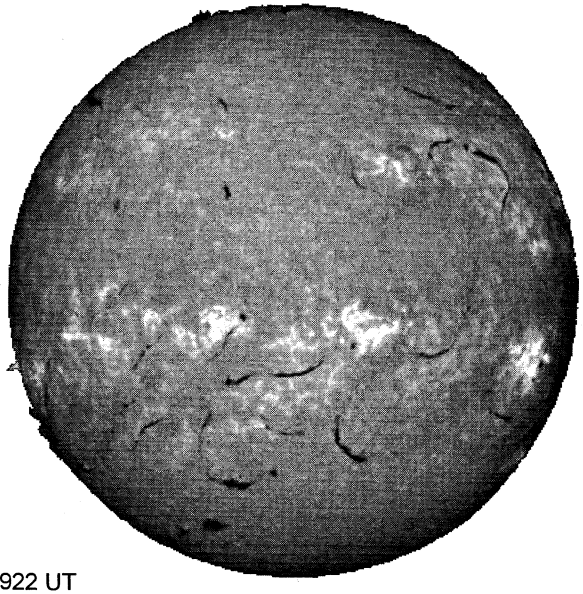
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

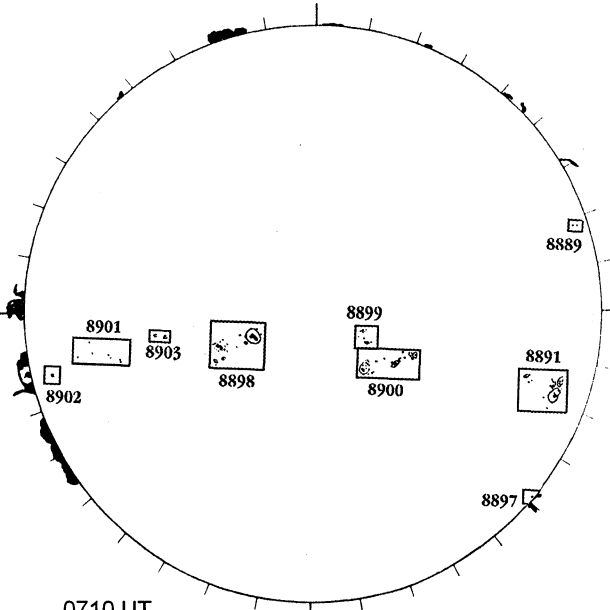


E-

0922 UT

S

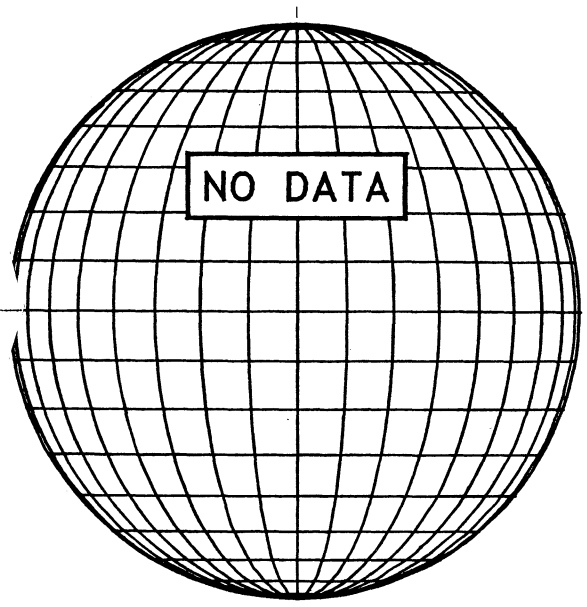
SAN VITO SUNSPOTS



0710 UT
1019 UT VALA Prom

S

SACRAMENTO PEAK CORONA (1.15 Radii)



S

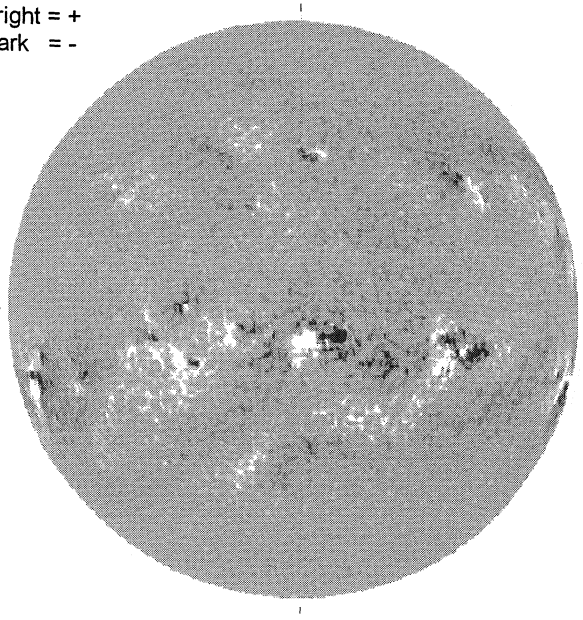
MARCH 8, 2000 (P= -23.21, Bo = -7.25, Lo = 205.71)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



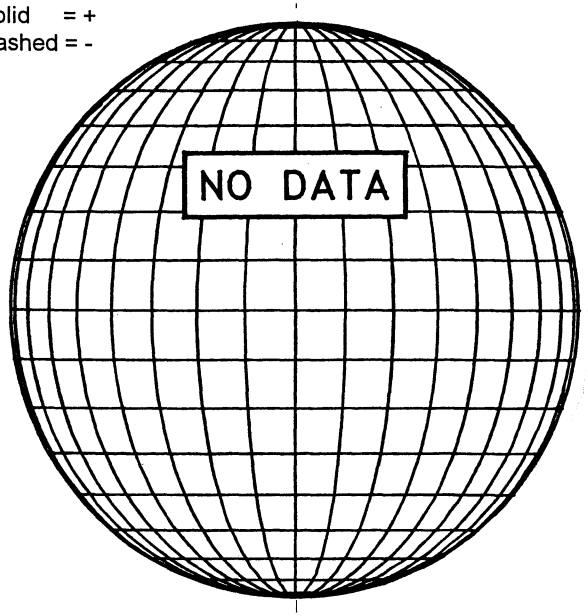
E-

2001 UT

STANFORD MAGNETOGRAM

N

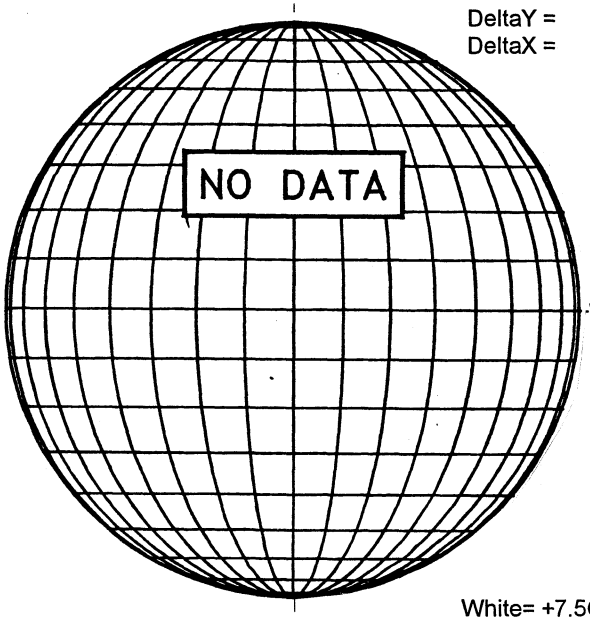
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

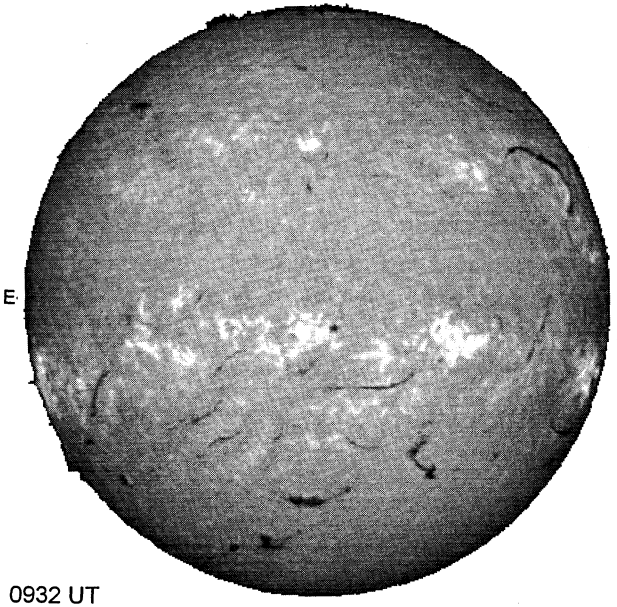
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

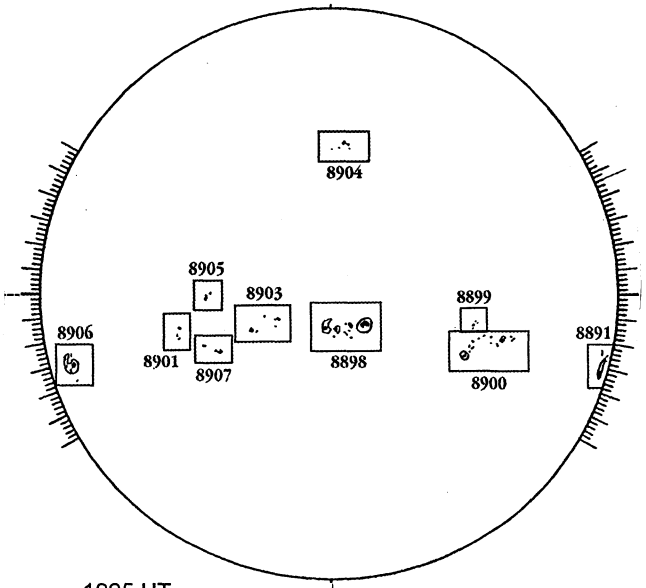


E

0932 UT

S

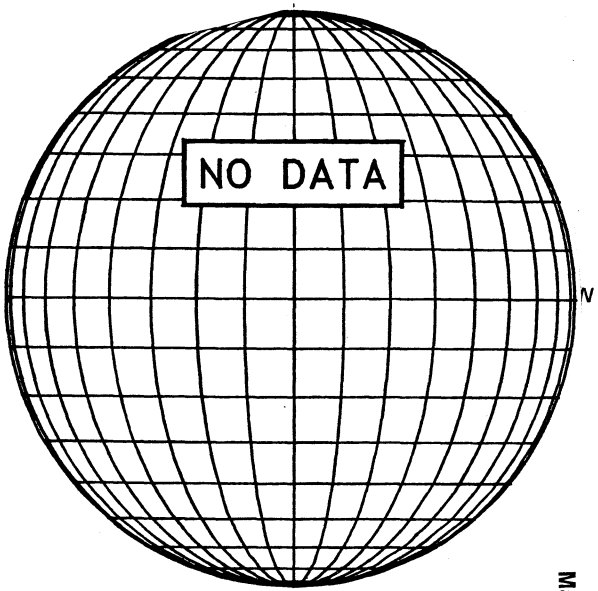
RAMEY SUNSPOT



1825 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)



W

S

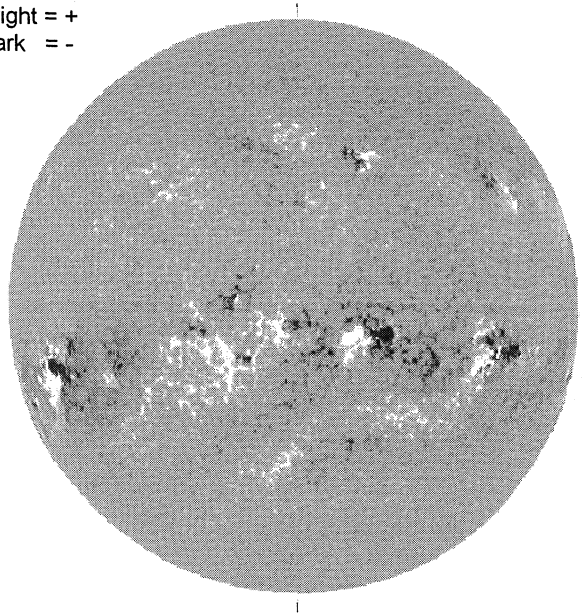
MARCH 9, 2000 (P= -23.41, Bo = -7.24, Lo = 192.53)

KITT PEAK MAGNETOGRAM

N

**868.8 nm

Bright = +
Dark = -



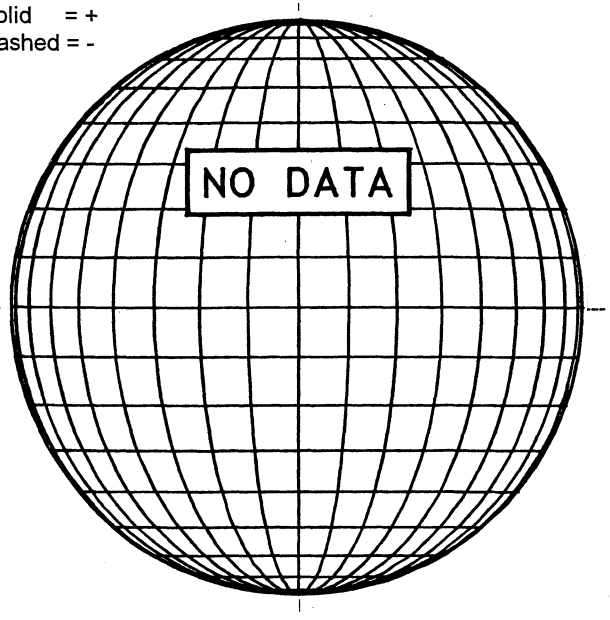
E-

1458 UT

STANFORD MAGNETOGRAM

N

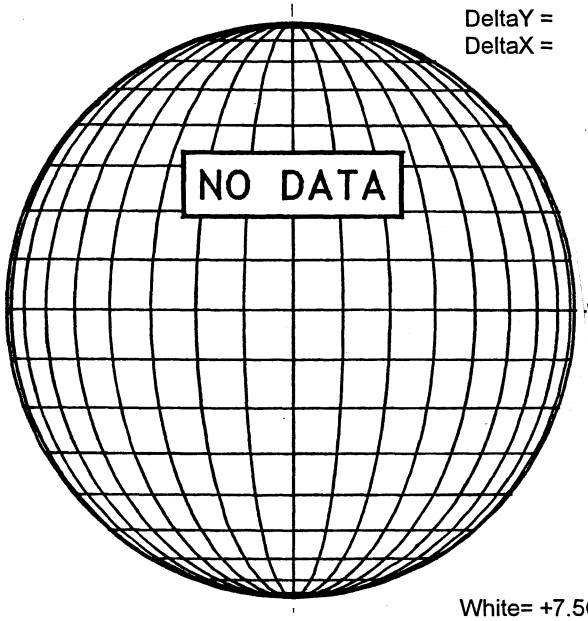
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

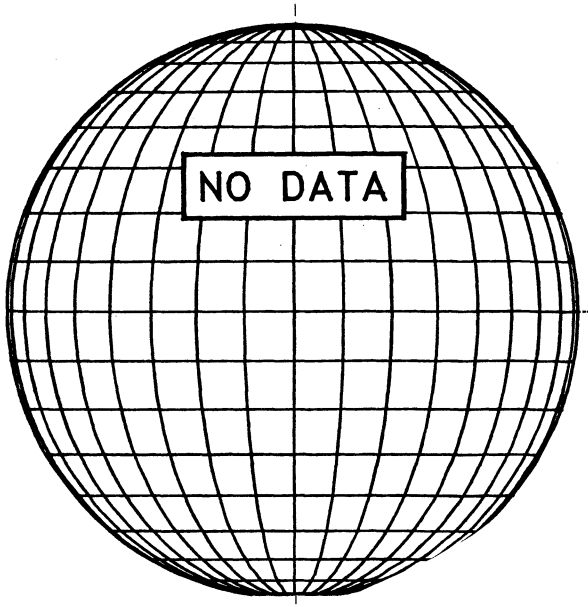
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

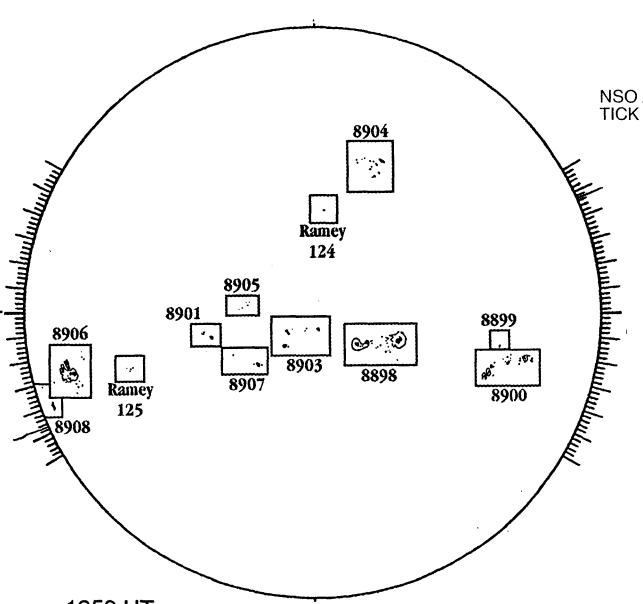
MEUDON H-ALPHA



E-

S

RAMEY SUNSPOT

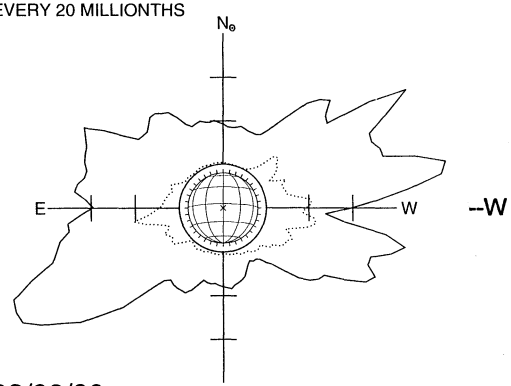


1259 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



--W

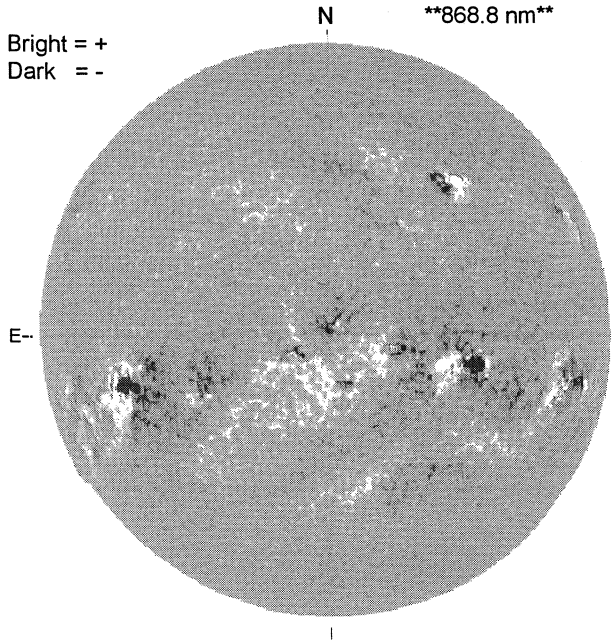
03/09/00
(DOY 69)

FE XIV 15:11 UT 1.15 R⊙
FE X 17:33 UT 1.15 R⊙

S

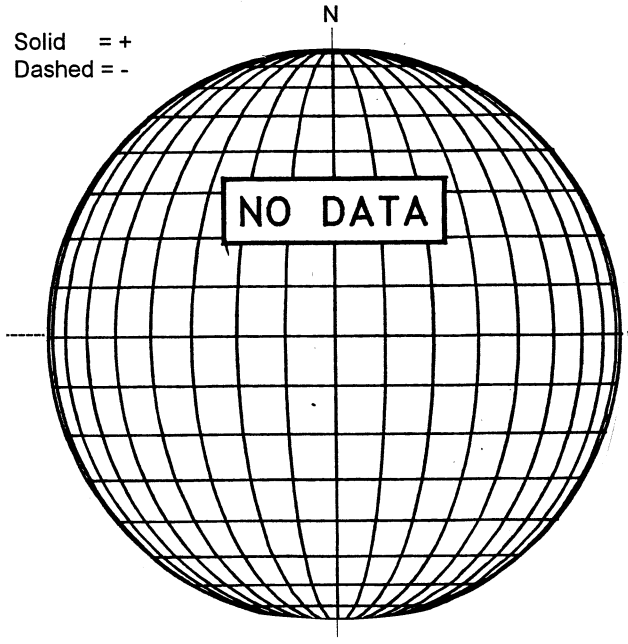
MARCH 10, 2000 (P= -23.61, Bo = -7.23, Lo = 179.36)

KITT PEAK MAGNETOGRAM

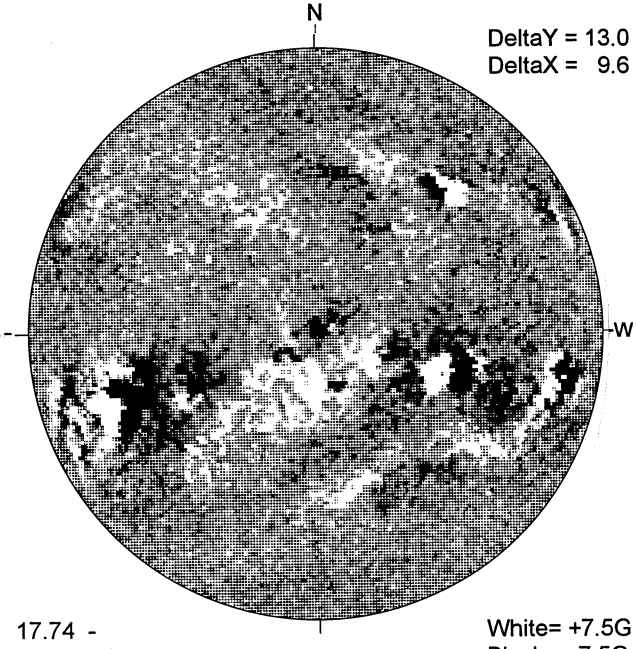


1606 UT

STANFORD MAGNETOGRAM



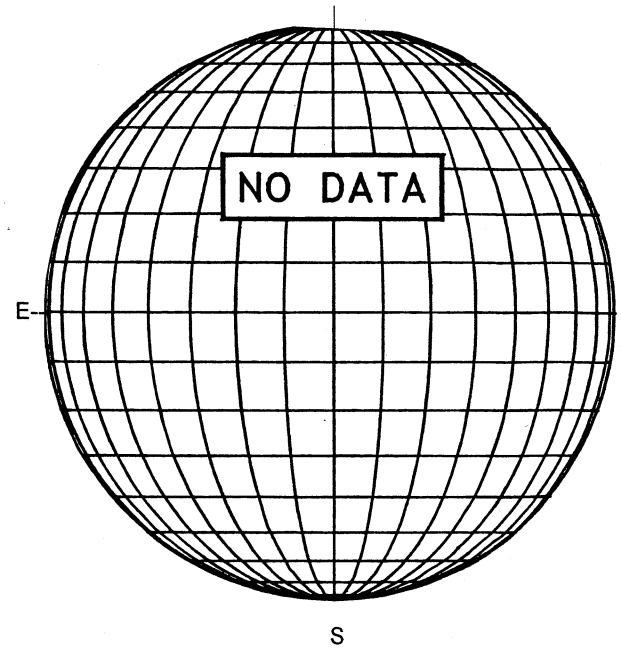
MT. WILSON MAGNETOGRAM



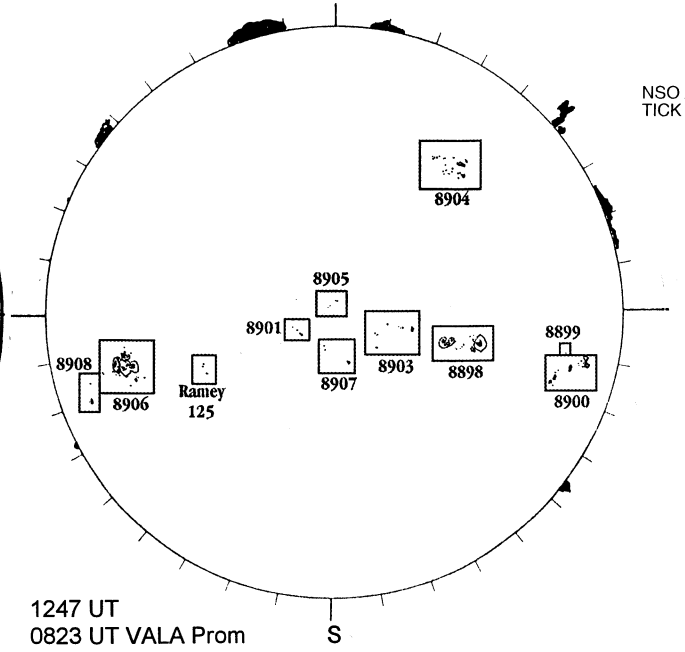
17.74 -
18.69 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

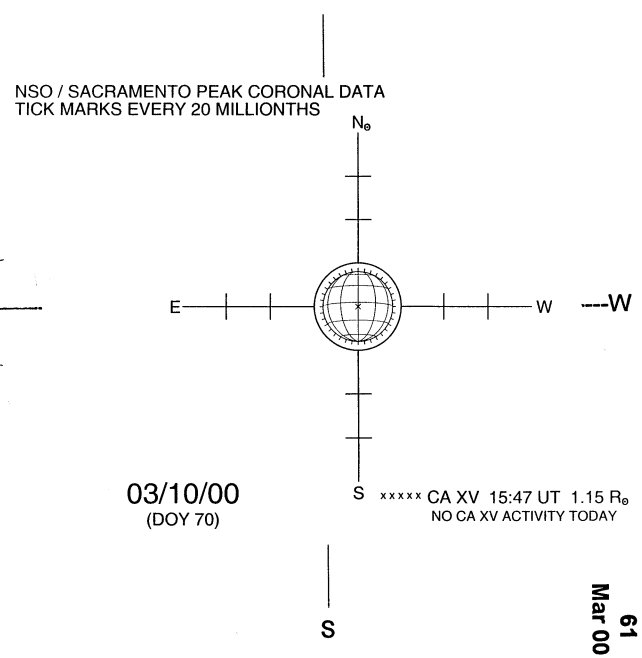


RAMEY SUNSPOTS



1247 UT
0823 UT VALA Prom

SACRAMENTO PEAK CORONA (1.15 Radii)



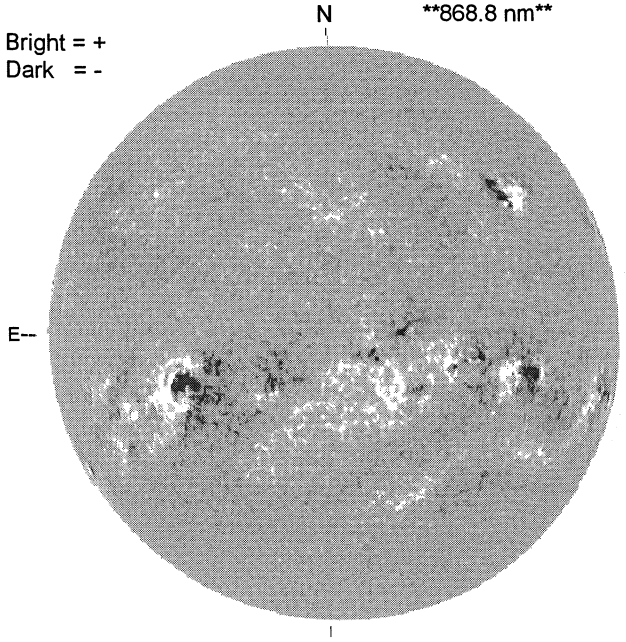
03/10/00
(DOY 70)

xxxxx CA XV 15:47 UT 1.15 R⊙
NO CA XV ACTIVITY TODAY

61
Mar 00

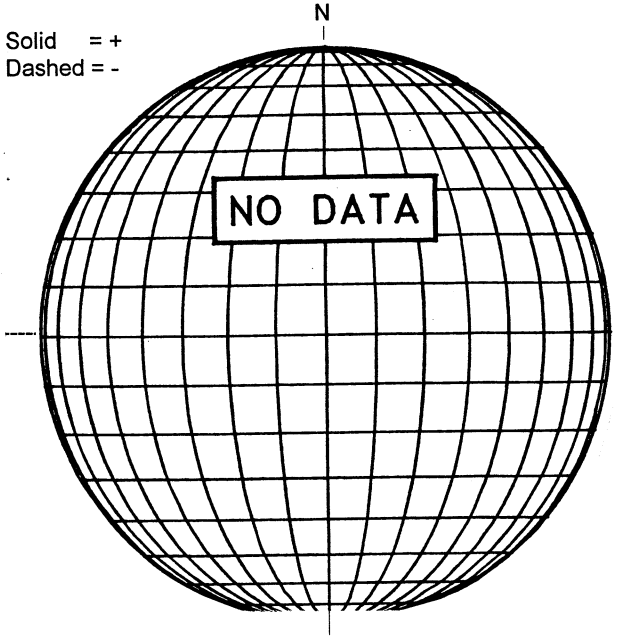
MARCH 11, 2000 (P= -23.80, Bo = -7.22, Lo = 166.18)

KITT PEAK MAGNETOGRAM

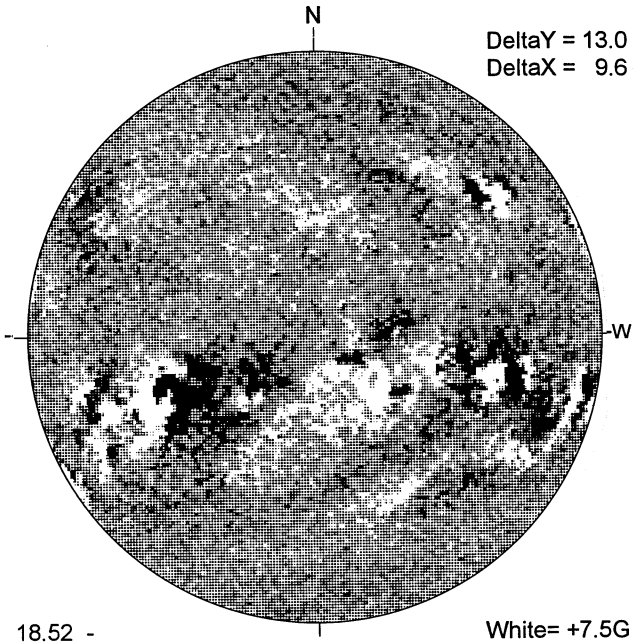


1604 UT

STANFORD MAGNETOGRAM



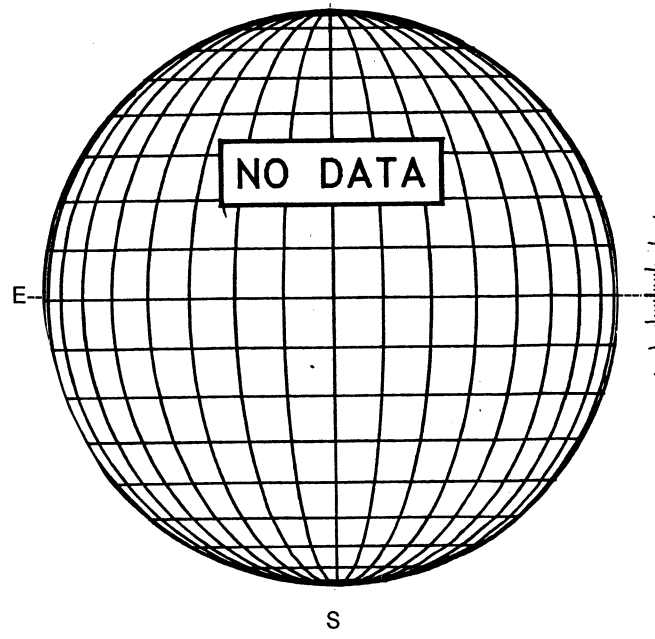
MT. WILSON MAGNETOGRAM



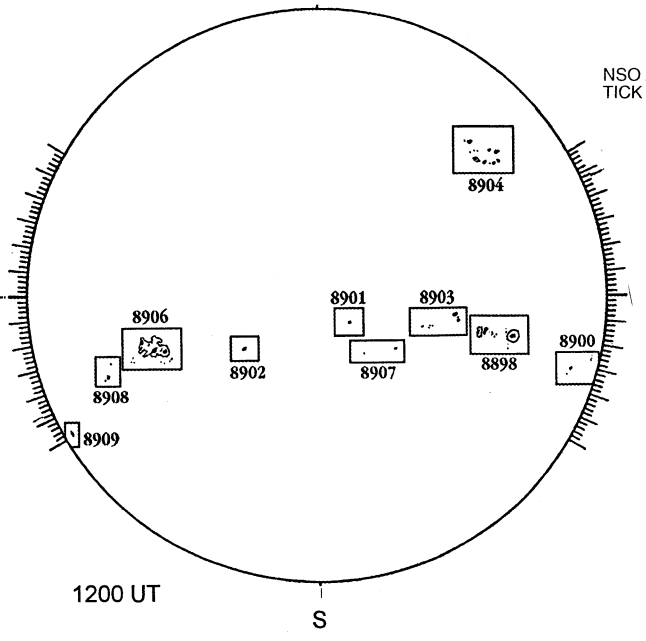
18.52 -
19.49 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

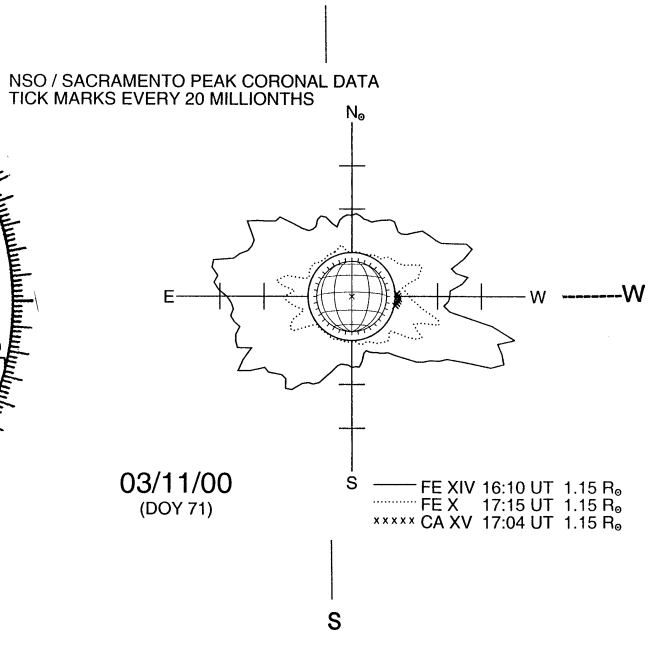


RAMEY SUNSPOTS



1200 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



03/11/00
(DOY 71)

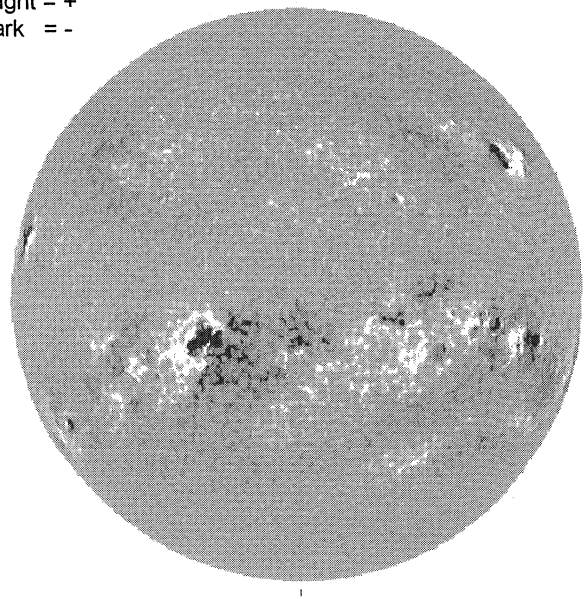
MARCH 12, 2000 (P= -23.98, Bo = -7.21, Lo = 153.00)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



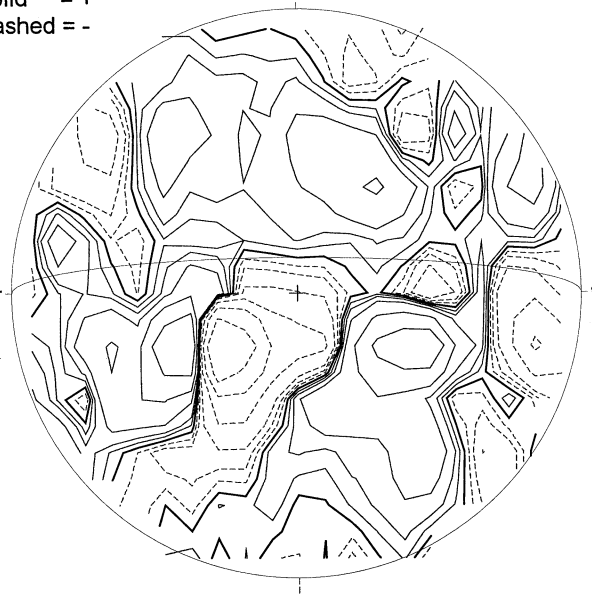
E-

1618 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

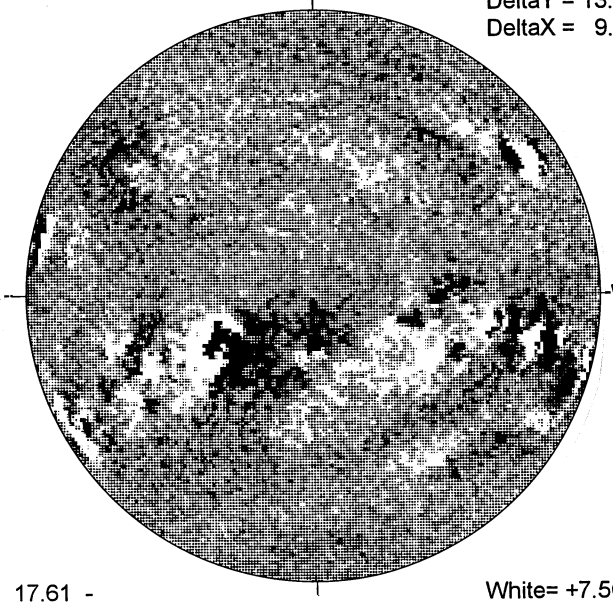


2012 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

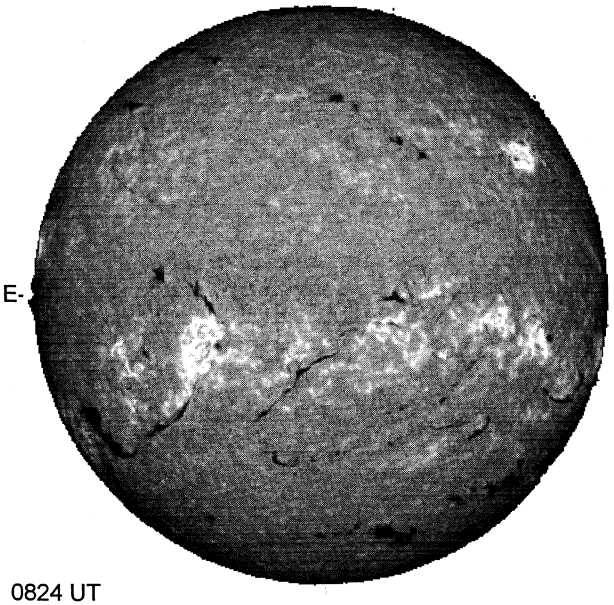


-W

17.61 -
18.57 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

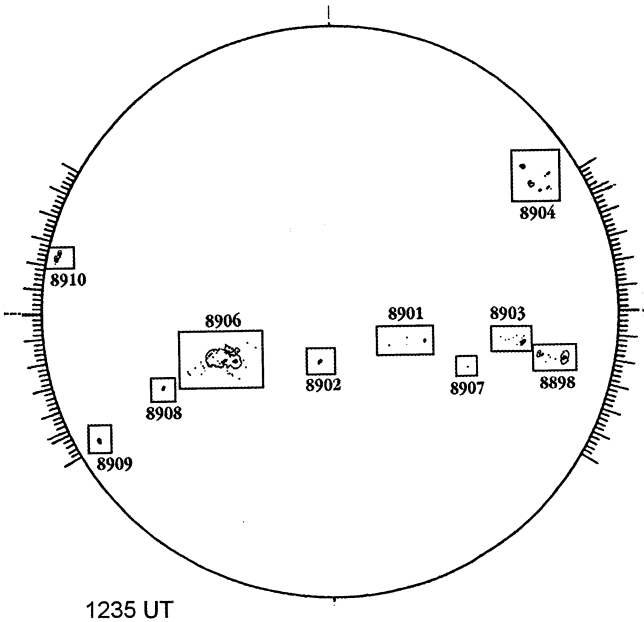


E-

0824 UT

S

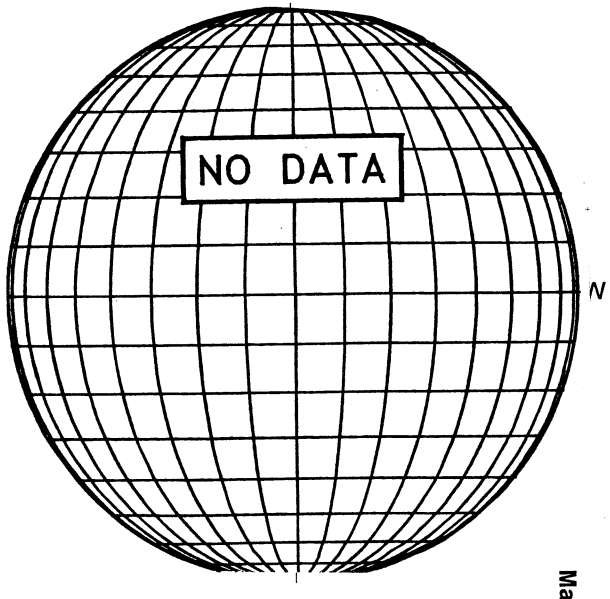
RAMEY SUNSPOTS



1235 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)



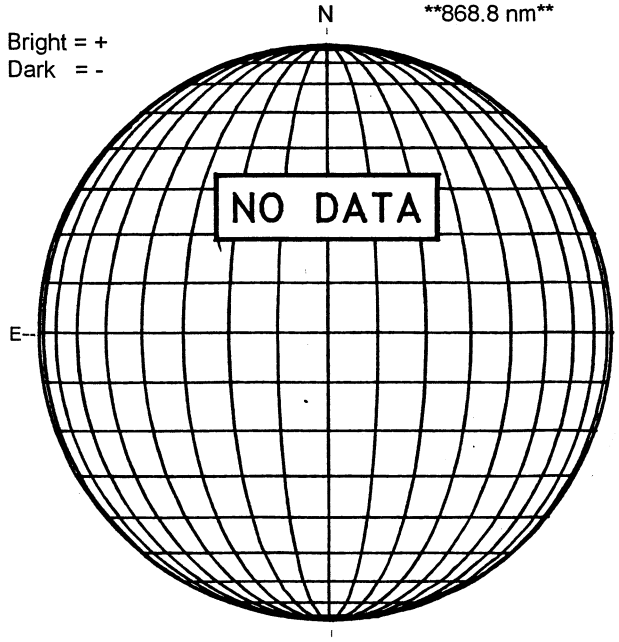
W

S

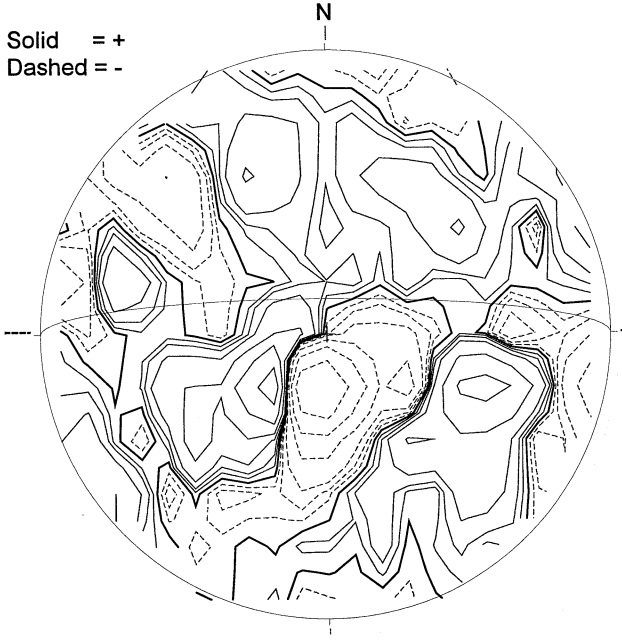
63
Mar 00

MARCH 13, 2000 (P= -24.15, Bo = -7.20, Lo = 139.82)

KITT PEAK MAGNETOGRAM

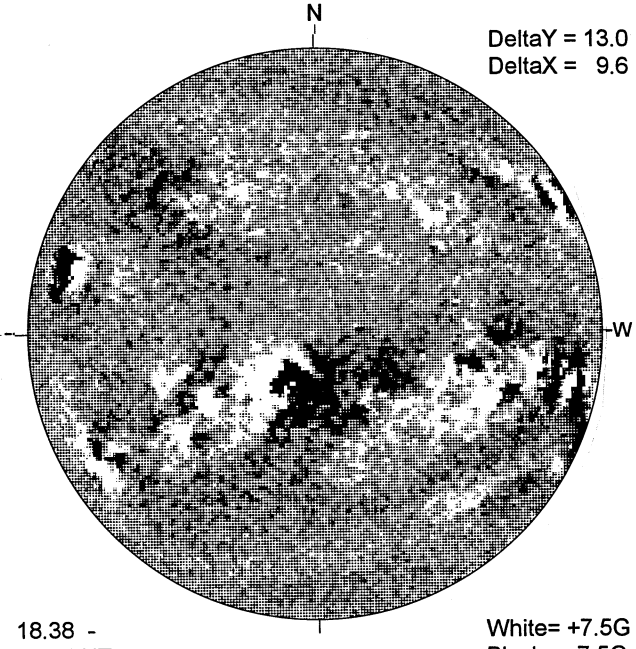


STANFORD MAGNETOGRAM



1954 UT

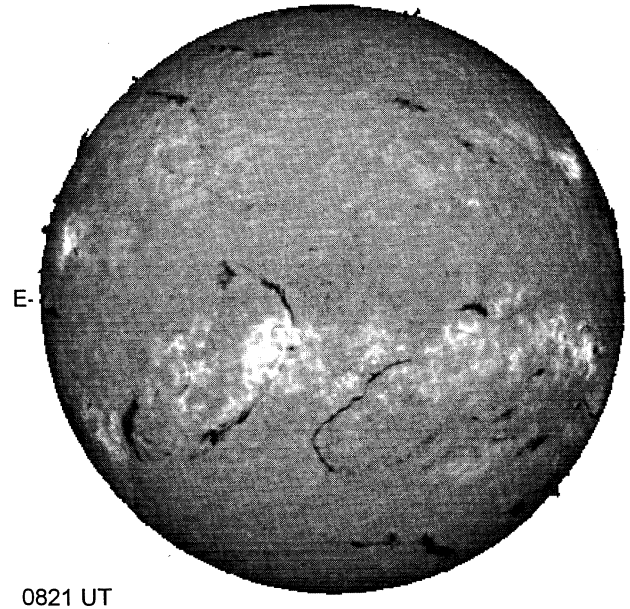
MT. WILSON MAGNETOGRAM



18.38 -
19.34 UT

White= +7.5G
Black = -7.5G

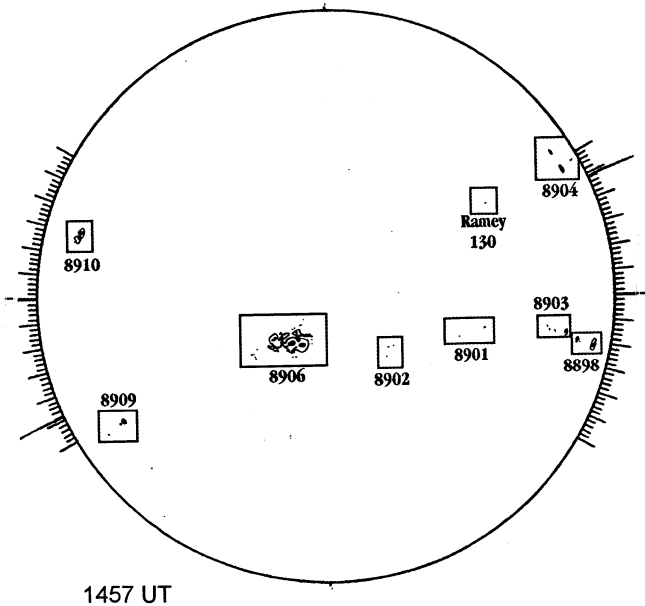
MEUDON H-ALPHA



0821 UT

S

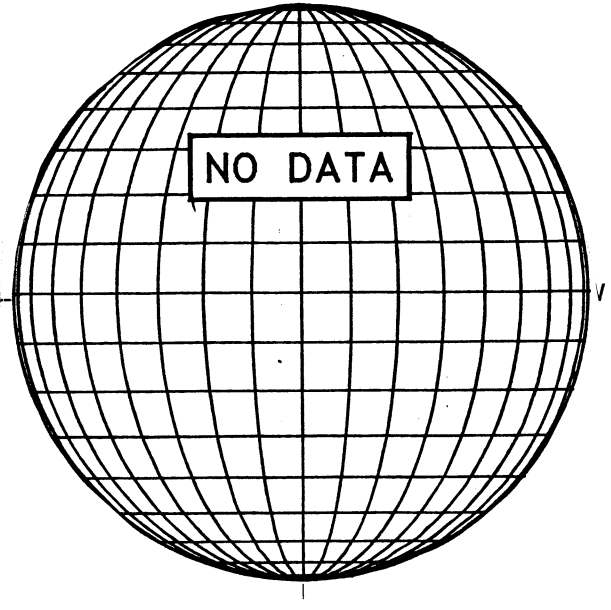
RAMEY SUNSPOT



1457 UT

S

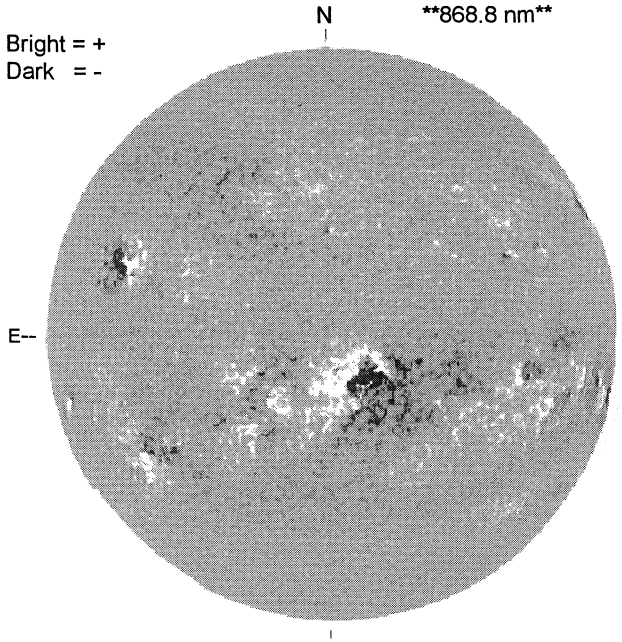
SACRAMENTO PEAK CORONA (1.15 Radii)



S

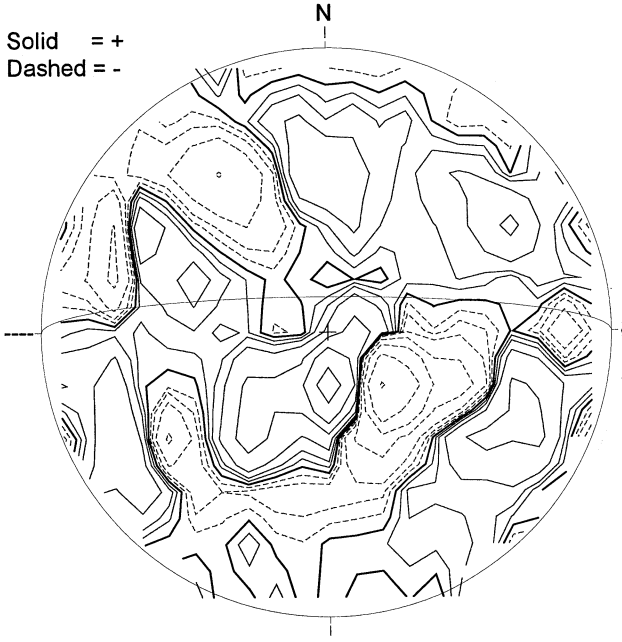
MARCH 14, 2000 (P= -24.32, Bo = -7.18, Lo = 126.64)

KITT PEAK MAGNETOGRAM



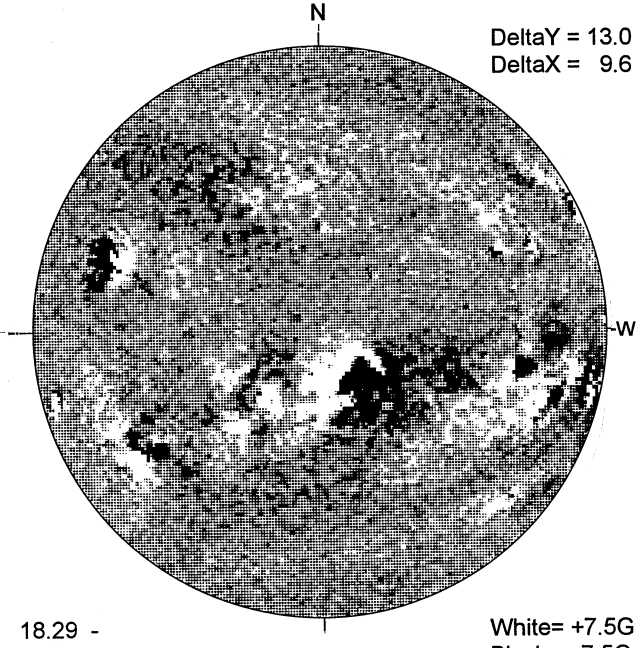
1611 UT

STANFORD MAGNETOGRAM



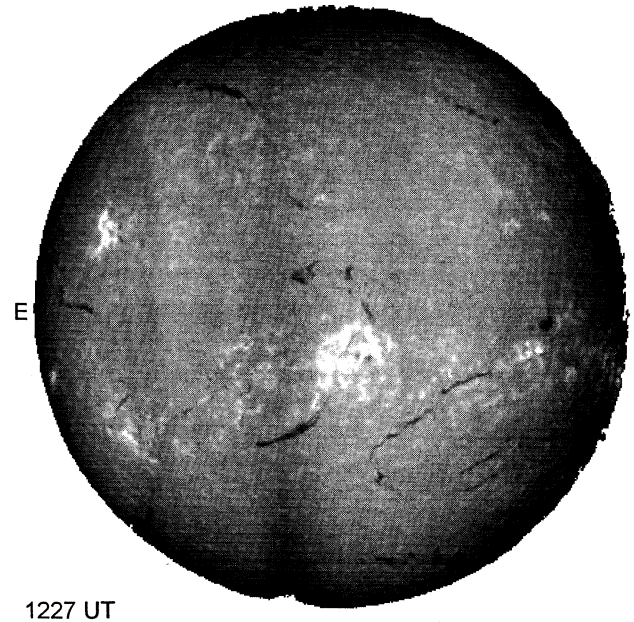
2103 UT

MT. WILSON MAGNETOGRAM



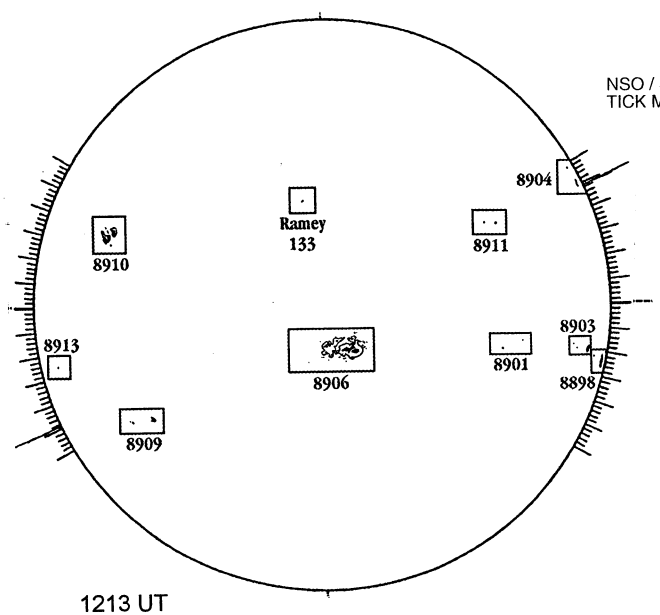
18.29 -
19. 25 UT

MEUDON H-ALPHA



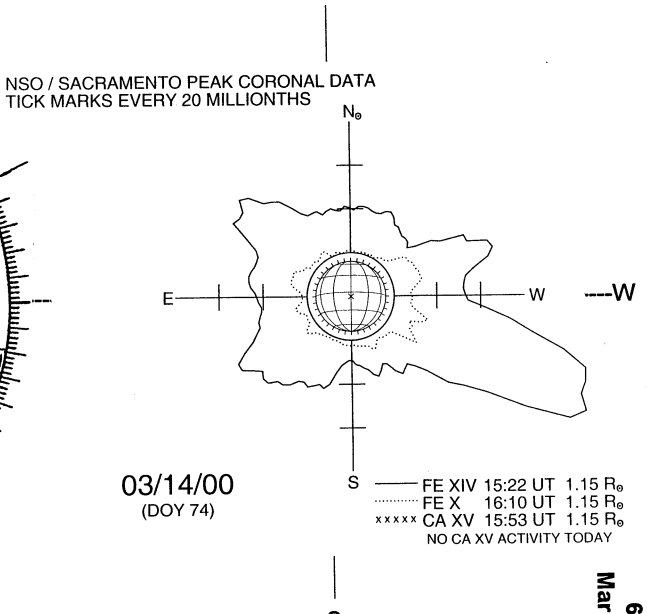
1227 UT

RAMEY SUNSPOT



1213 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



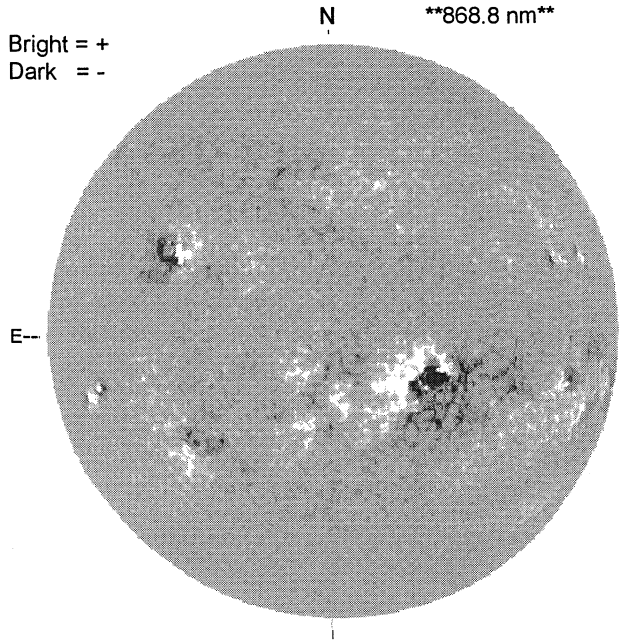
03/14/00
(DOY 74)

S

65
Mar 00

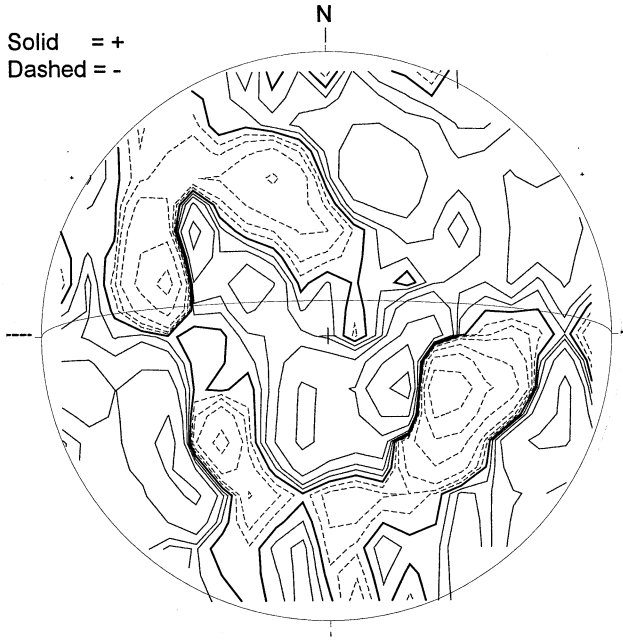
MARCH 15, 2000 (P= -24.48, Bo = -7.16, Lo = 113.46)

KITT PEAK MAGNETOGRAM



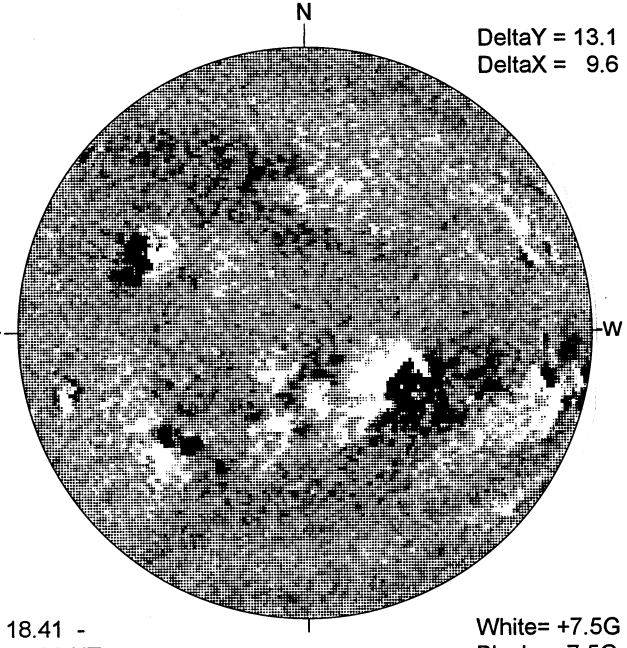
1558 UT

STANFORD MAGNETOGRAM



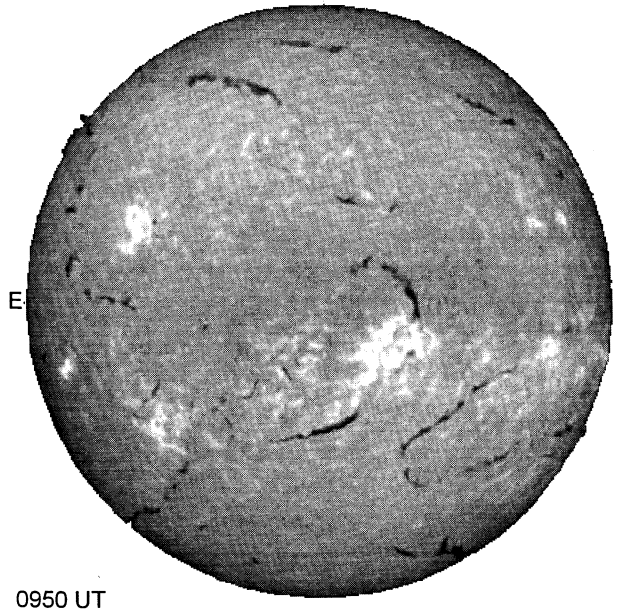
2024 UT

MT. WILSON MAGNETOGRAM



18.41 -
19.36 UT

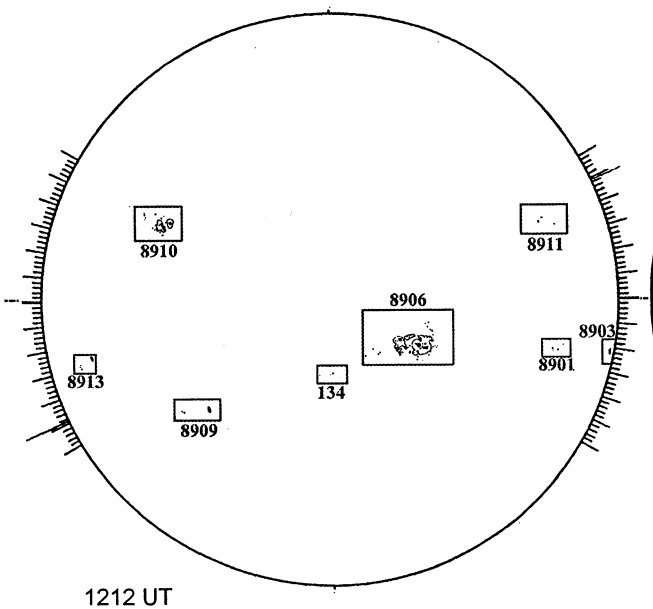
MEUDON H-ALPHA



0950 UT

S

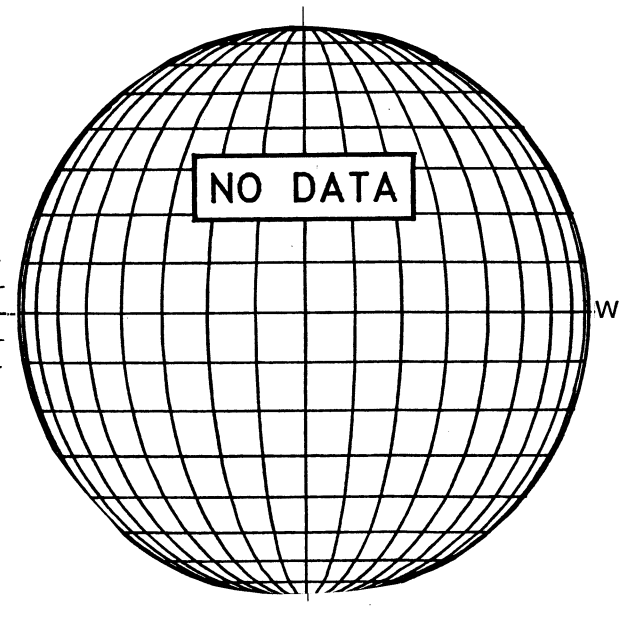
RAMEY SUNSPOT



1212 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)



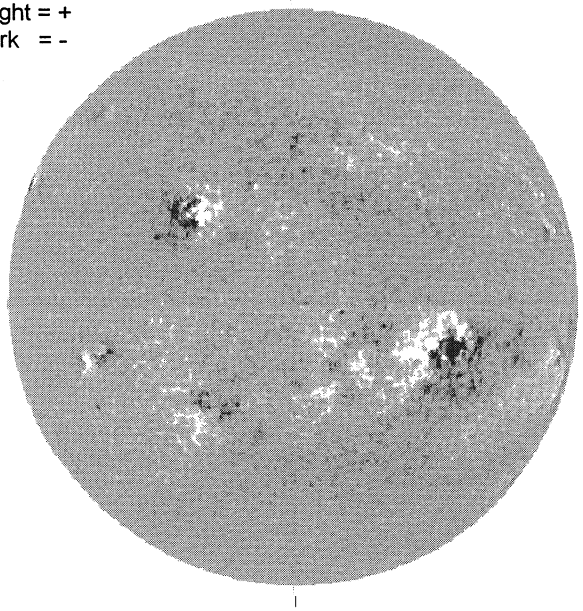
S

MARCH 16, 2000 (P= -24.64, Bo = -7.14, Lo = 100.28)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



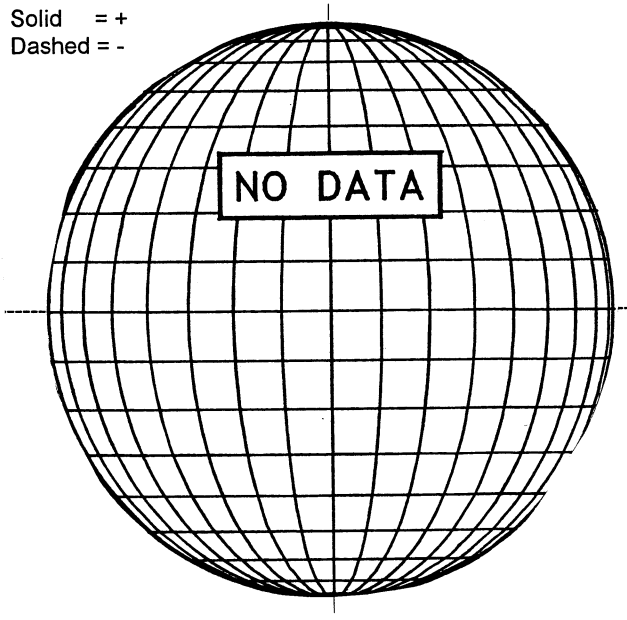
E--

1700 UT

STANFORD MAGNETOGRAM

N

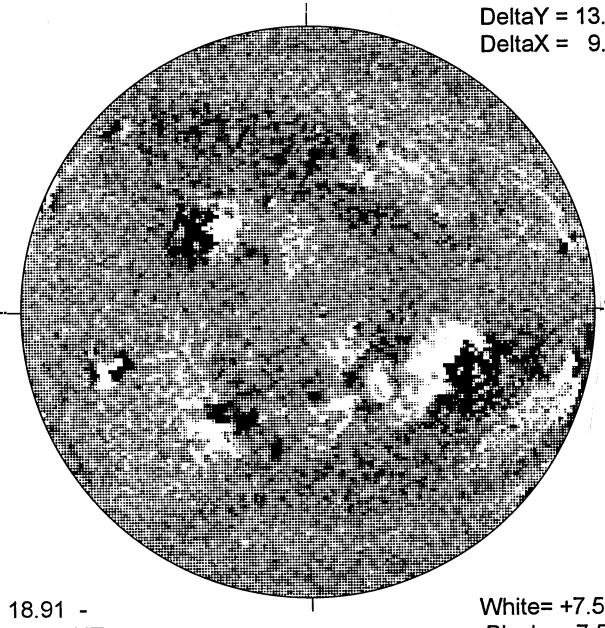
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

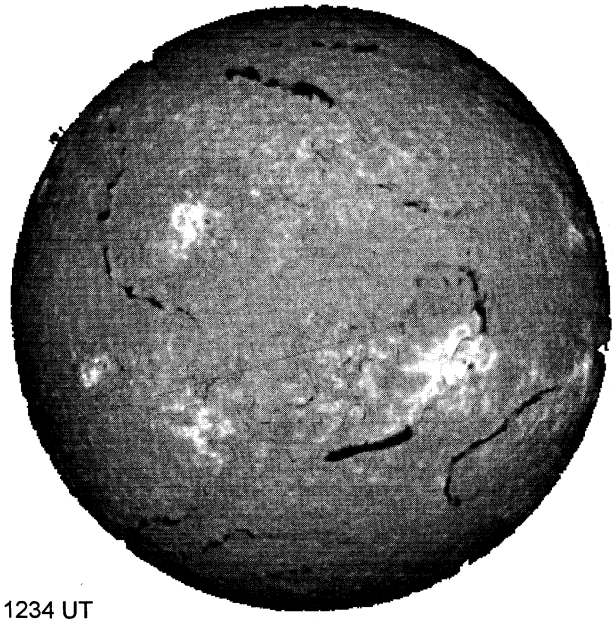


-W

18.91 -
19.86 UT

White= +7.5G
Black = -7.5G

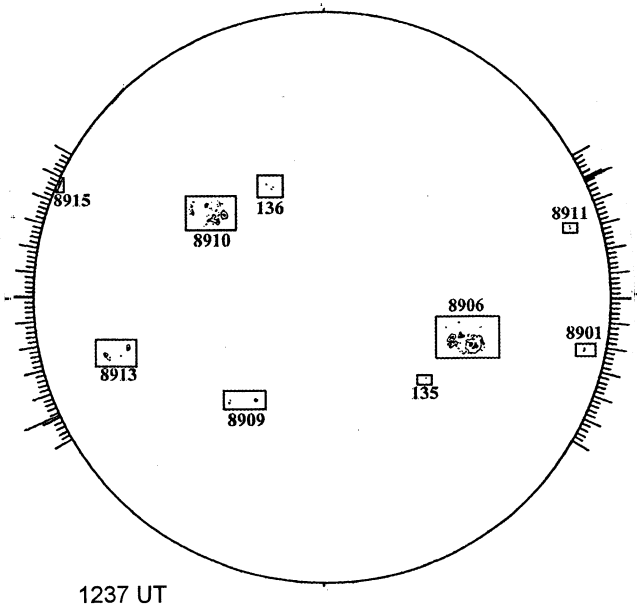
MEUDON H-ALPHA



1234 UT

S

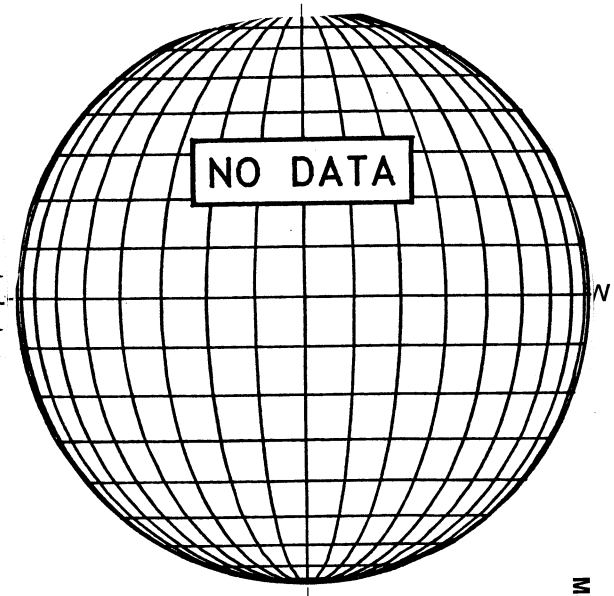
RAMEY SUNSPOT



1237 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

S

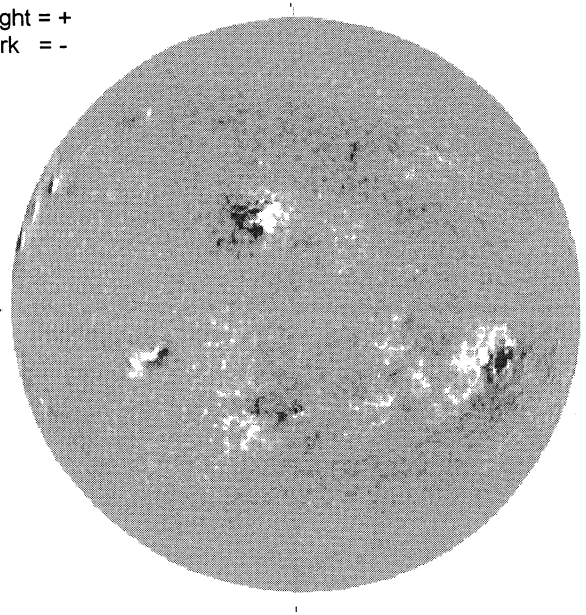
67
Mar 00

MARCH 17, 2000 (P= -24.79, Bo = -7.12, Lo = 87.10)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



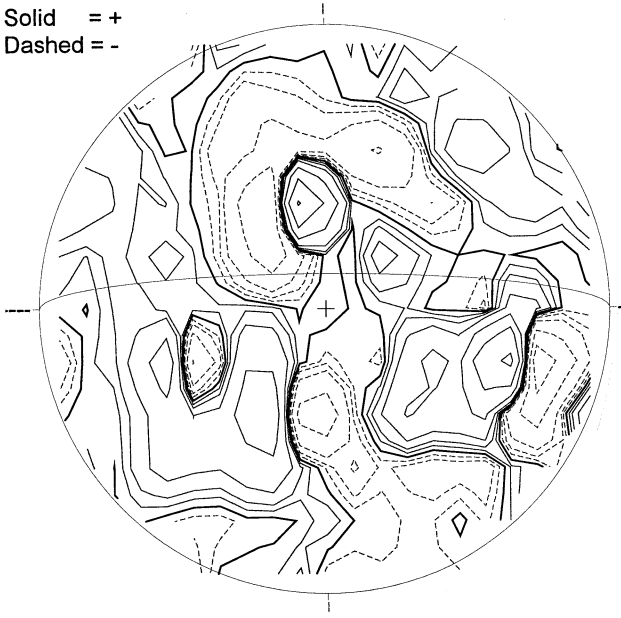
E--

1640 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

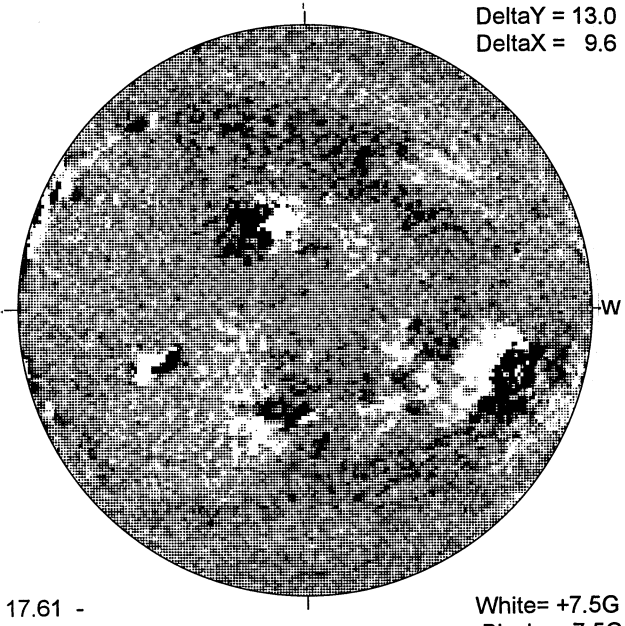


1834 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

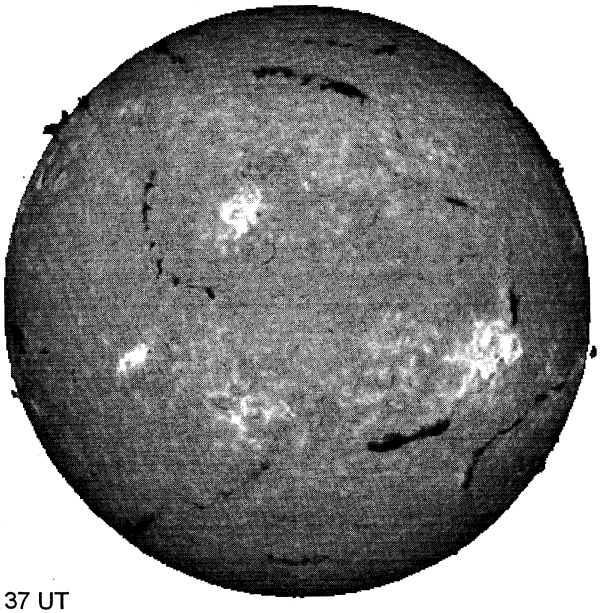


W

17.61 -
18.57 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

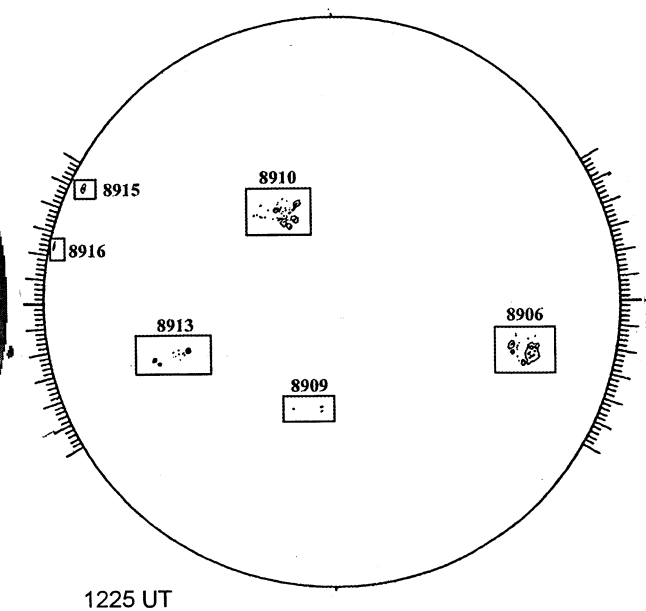


E--

1137 UT

S

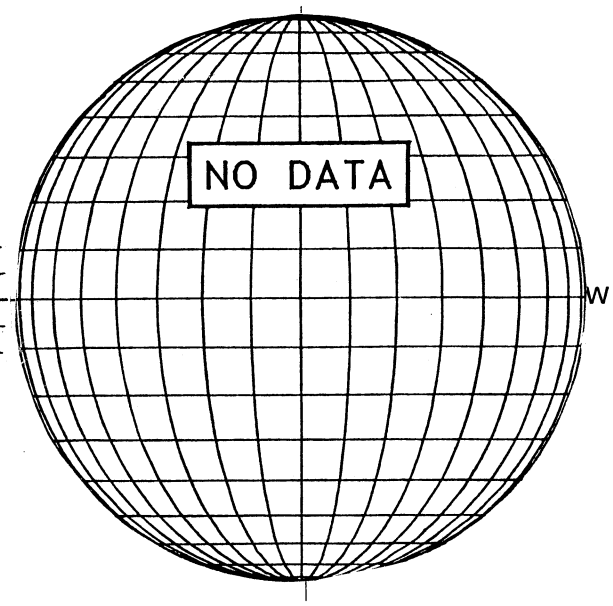
RAMEY SUNSPOT



1225 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

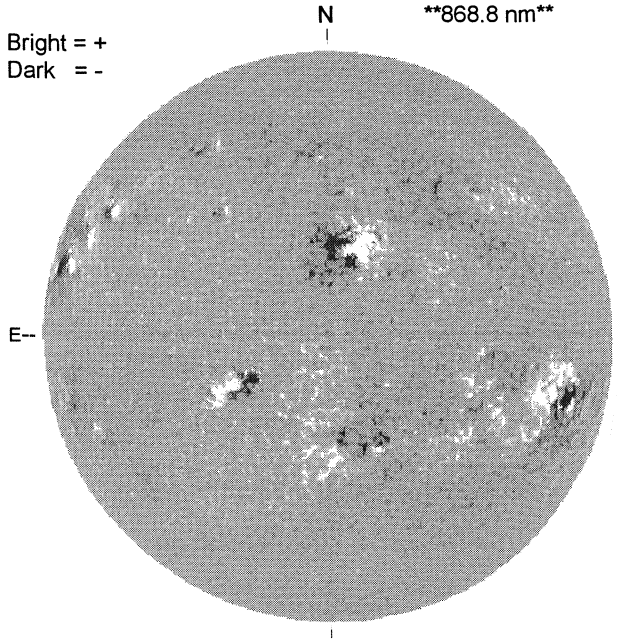


W

S

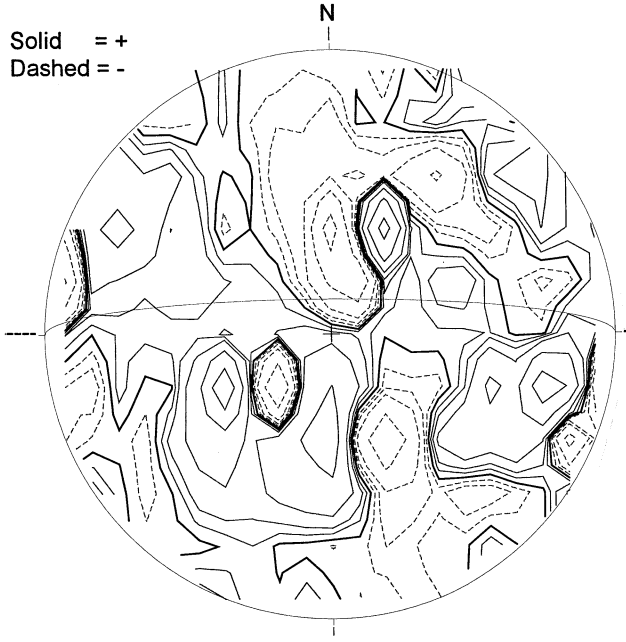
MARCH 18, 2000 (P= -24.93, Bo = -7.09, Lo = 73.92)

KITT PEAK MAGNETOGRAM



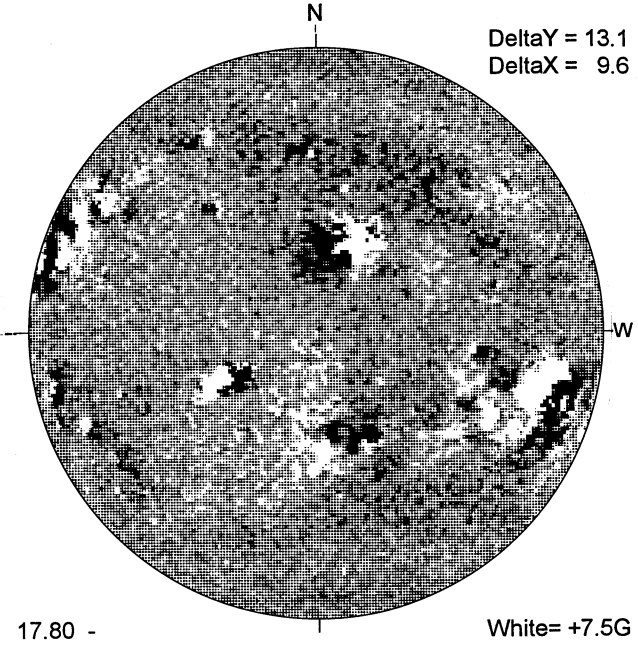
1504 UT

STANFORD MAGNETOGRAM



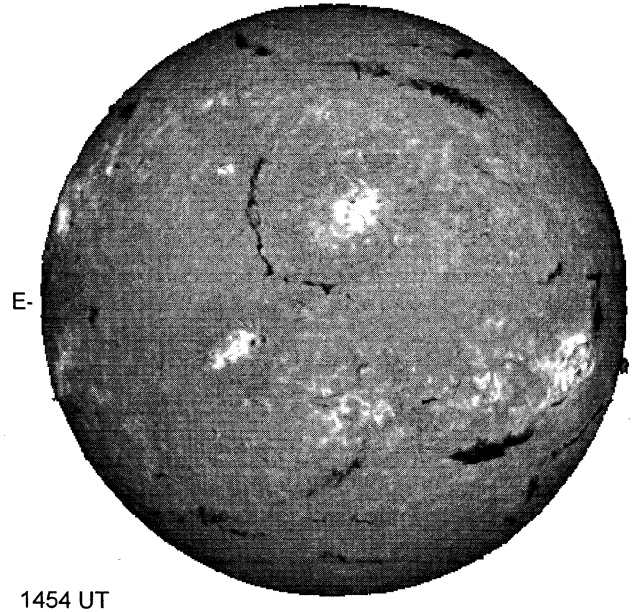
1917 UT

MT. WILSON MAGNETOGRAM



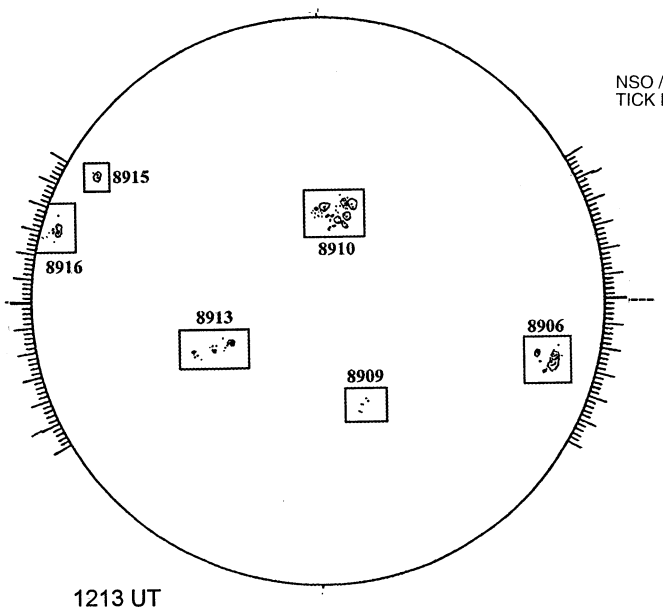
17.80 -
18.76 UT

MEUDON H-ALPHA



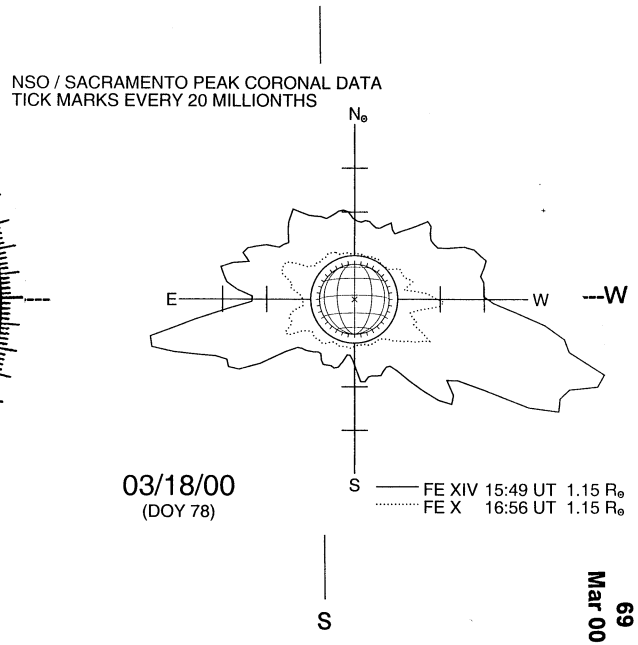
1454 UT

RAMEY SUNSPOT



1213 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

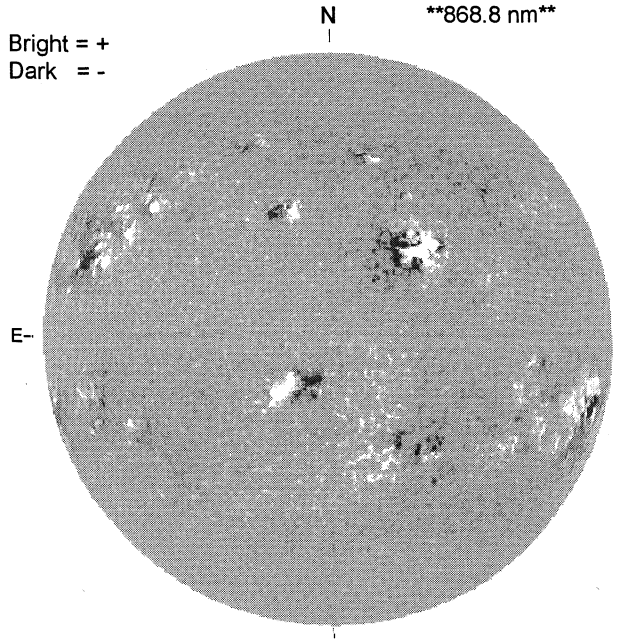


03/18/00
(DOY 78)

69
Mar 00

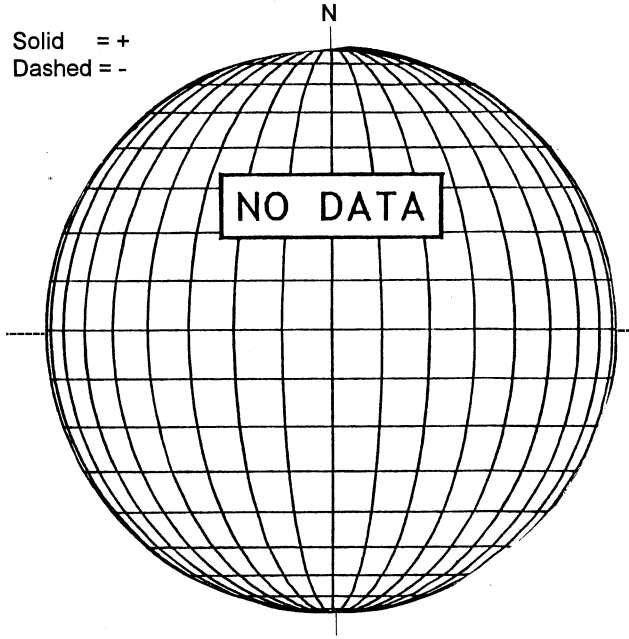
MARCH 19, 2000 (P= -25.06, Bo = -7.07, Lo = 60.73)

KITT PEAK MAGNETOGRAM

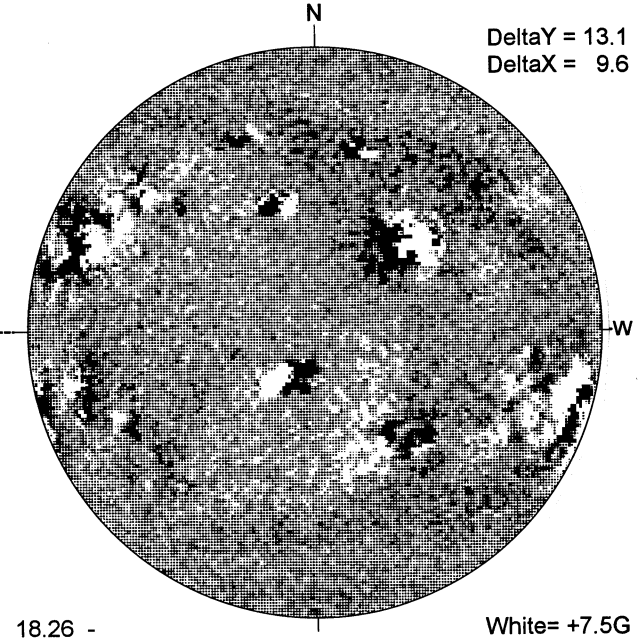


1451 UT

STANFORD MAGNETOGRAM

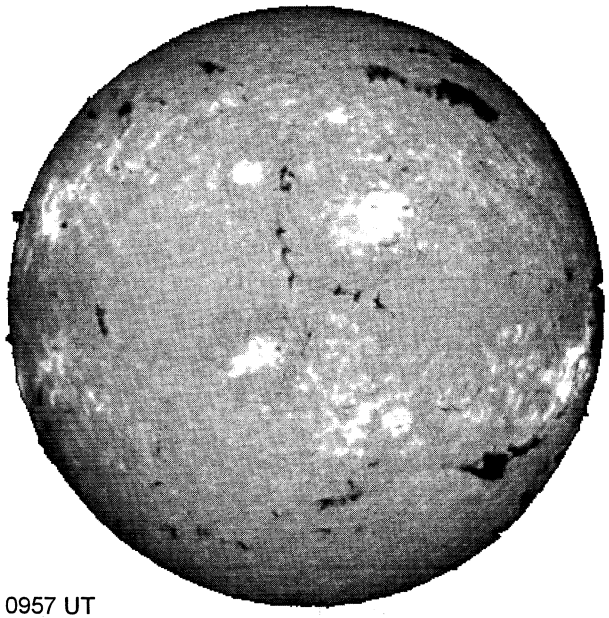


MT. WILSON MAGNETOGRAM



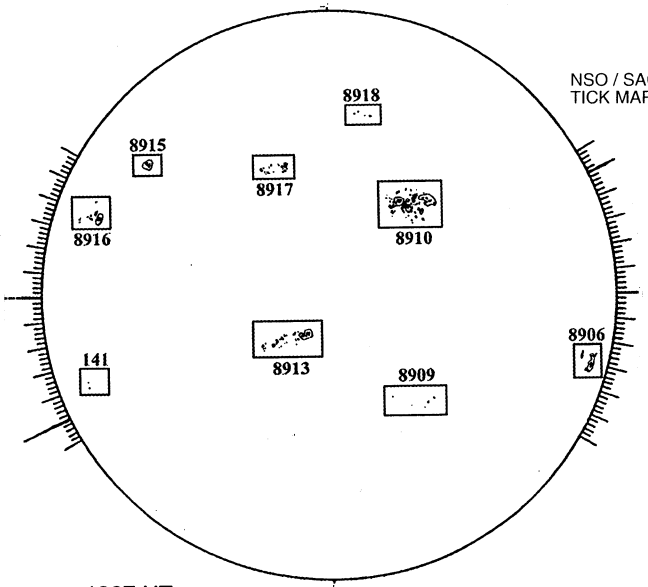
18.26 -
19.21 UT

MEUDON H-ALPHA



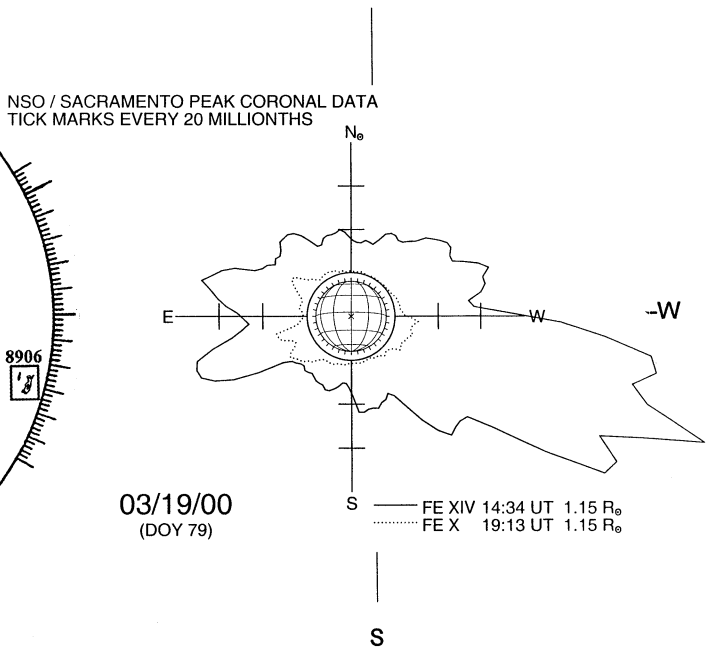
0957 UT

RAMEY SUNSPOT



1207 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



03/19/00
(DOY 79)

S

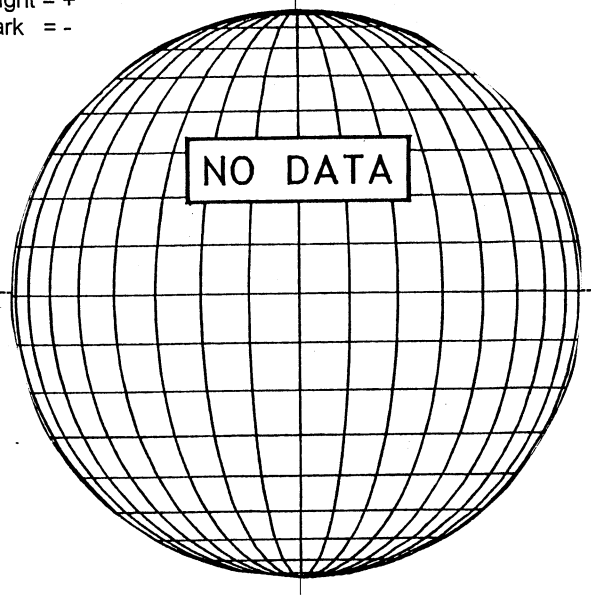
MARCH 20, 2000 (P= -25.19, Bo = -7.04, Lo = 47.55)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -

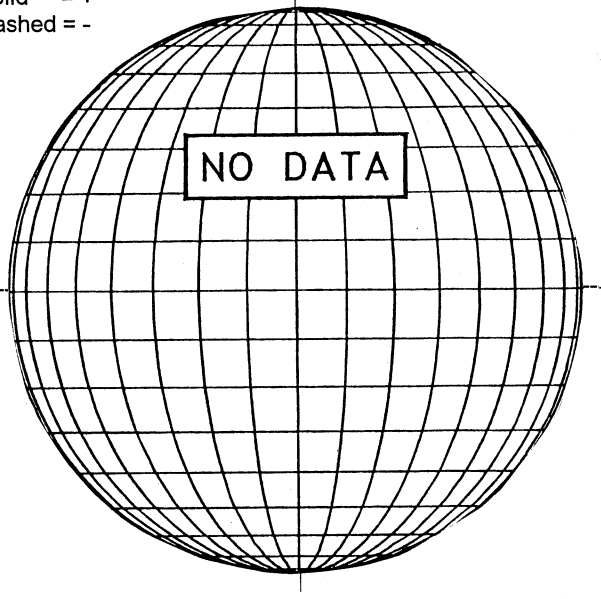


E

STANFORD MAGNETOGRAM

N

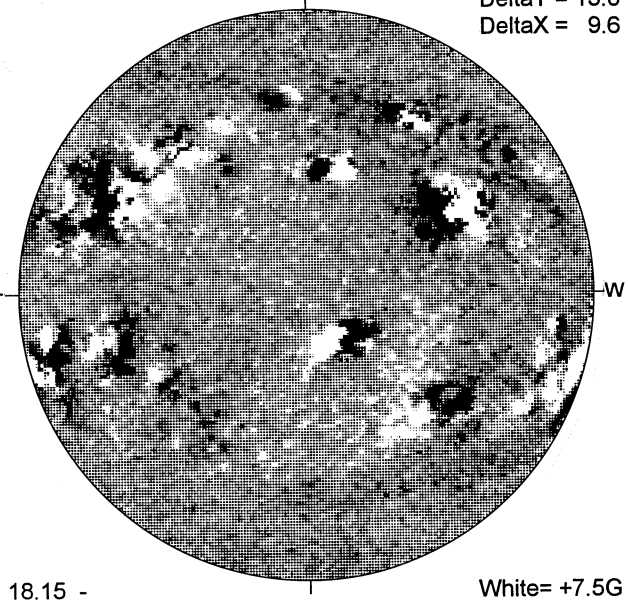
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

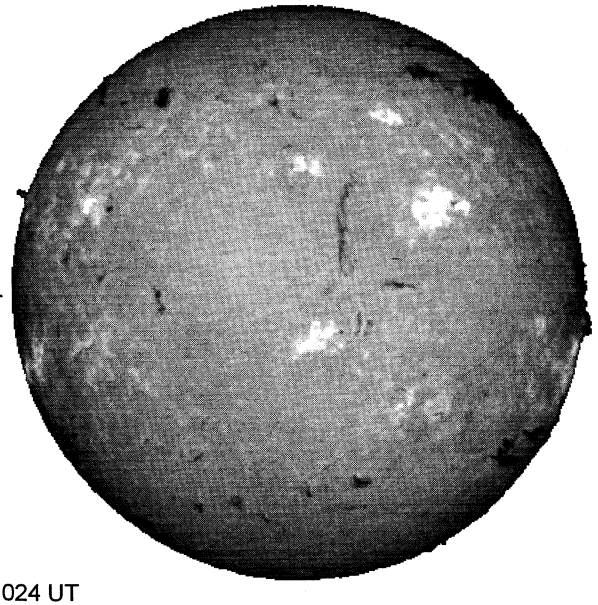


W

18.15 -
19.11 UT

White= +7.5G
Black = -7.5G

---- MEUDON H-ALPHA

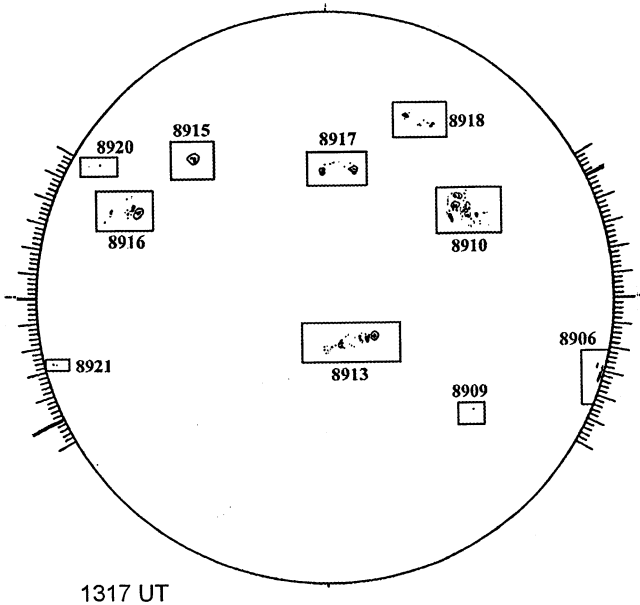


E

1024 UT

S

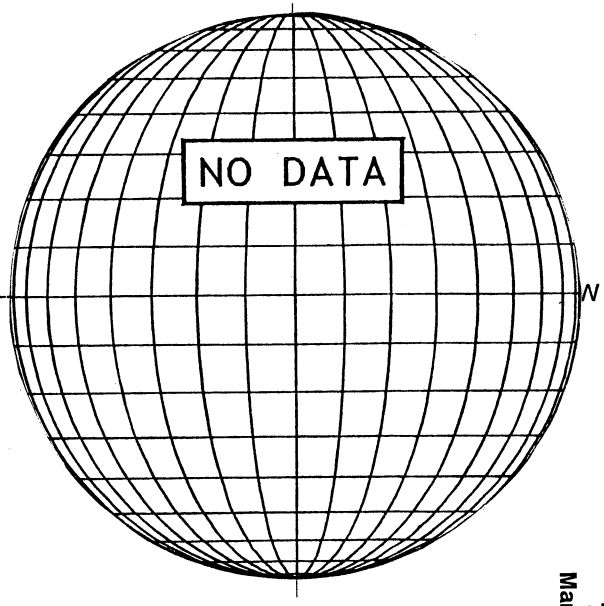
RAMEY SUNSPOT



1317 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----



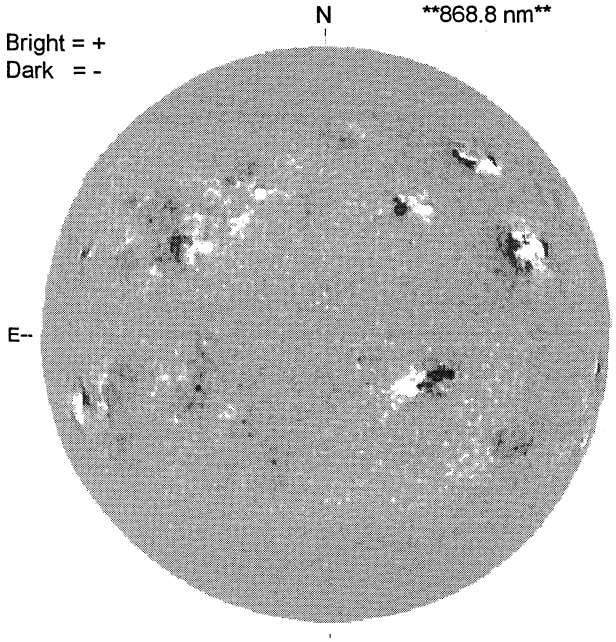
W

S

71
Mar 00

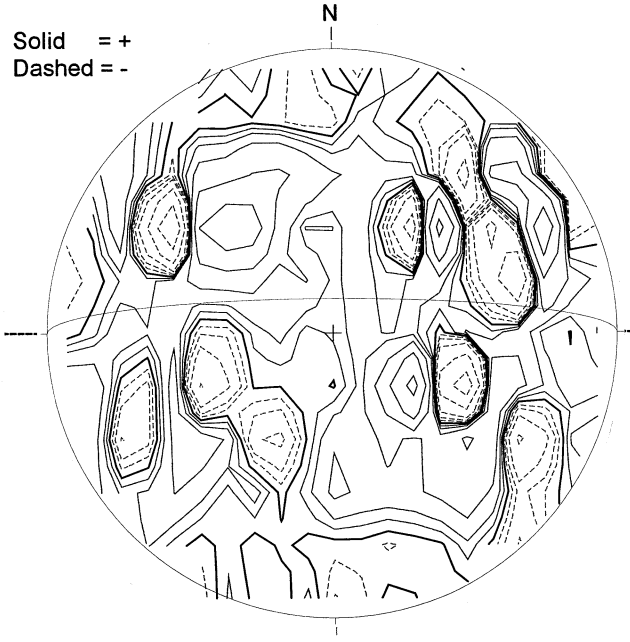
MARCH 21, 2000 (P= -25.31, Bo = -7.01, Lo = 34.36)

KITT PEAK MAGNETOGRAM



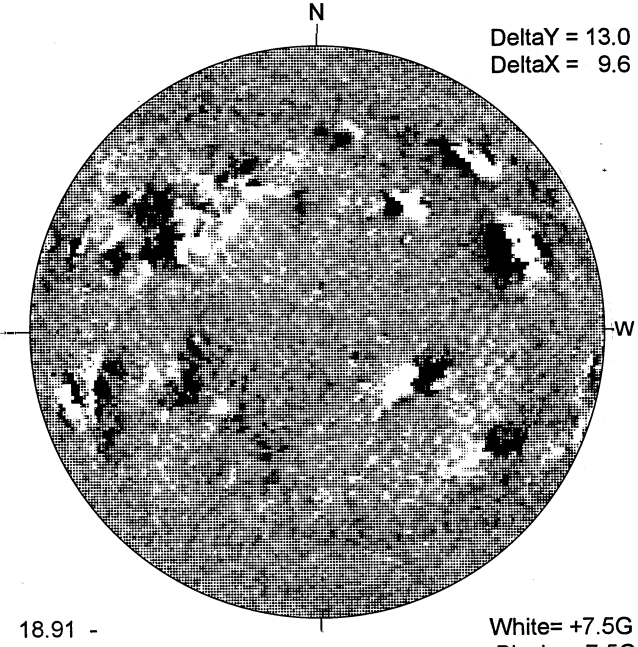
1726 UT

STANFORD MAGNETOGRAM



1845 UT

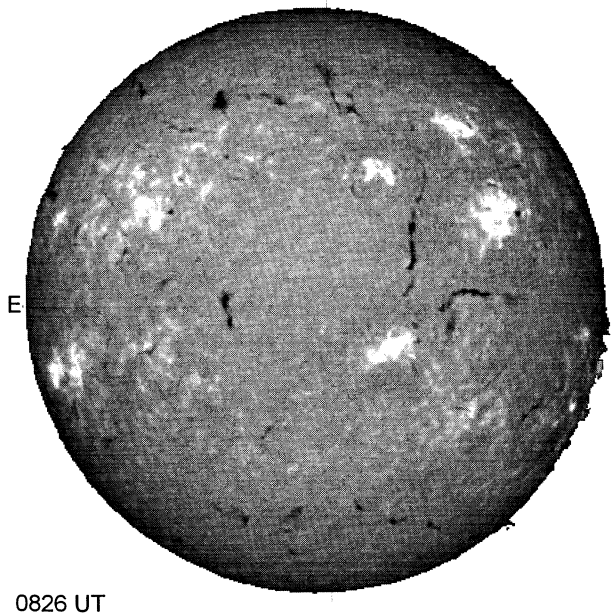
MT. WILSON MAGNETOGRAM



18.91 -
19.87 UT

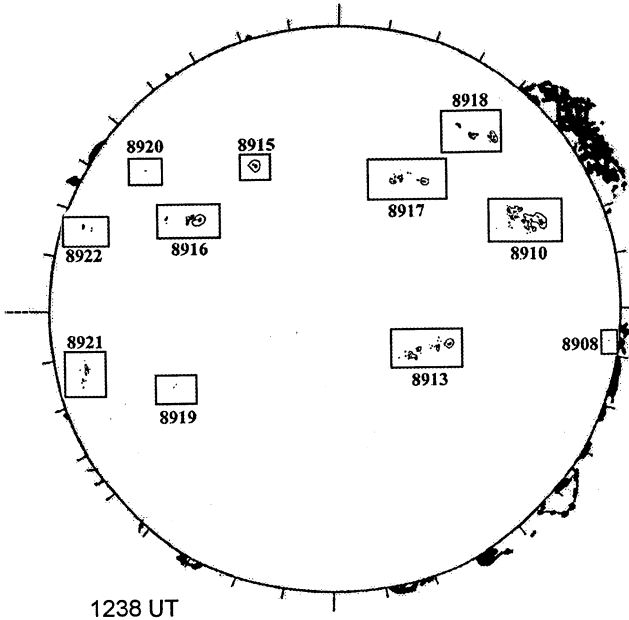
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



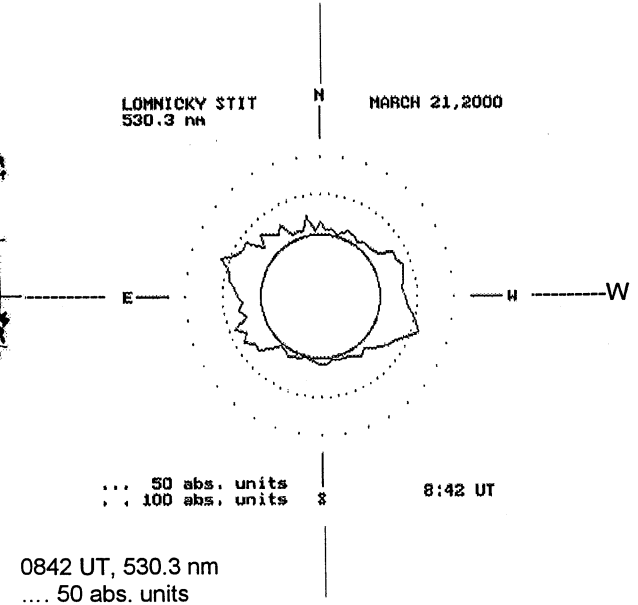
0826 UT

RAMEY SUNSPOT



1238 UT
0727 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)



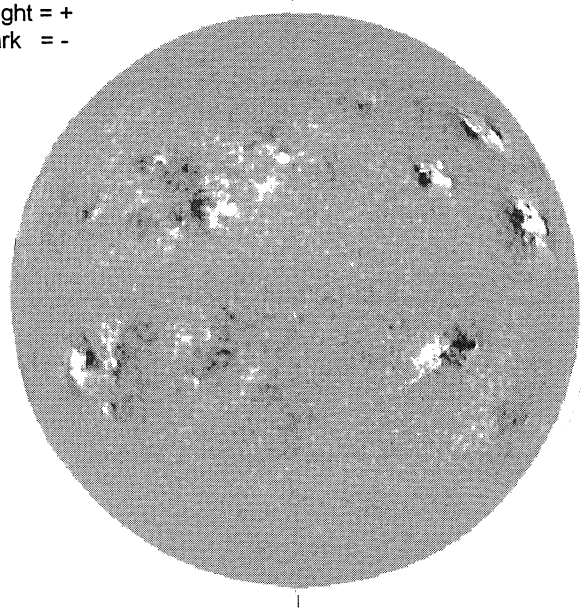
0842 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

MARCH 22, 2000 (P= -25.43, Bo = -6.97, Lo = 21.18)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E-

1538 UT

STANFORD MAGNETOGRAM

N

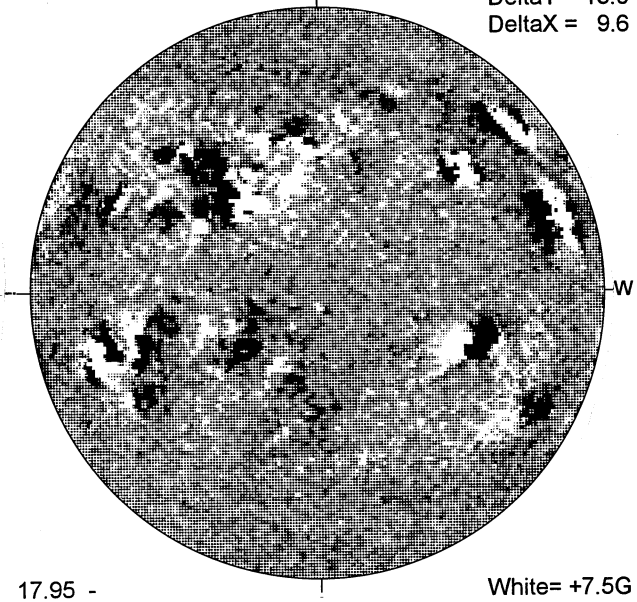
Solid = +
Dashed = -

1852 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

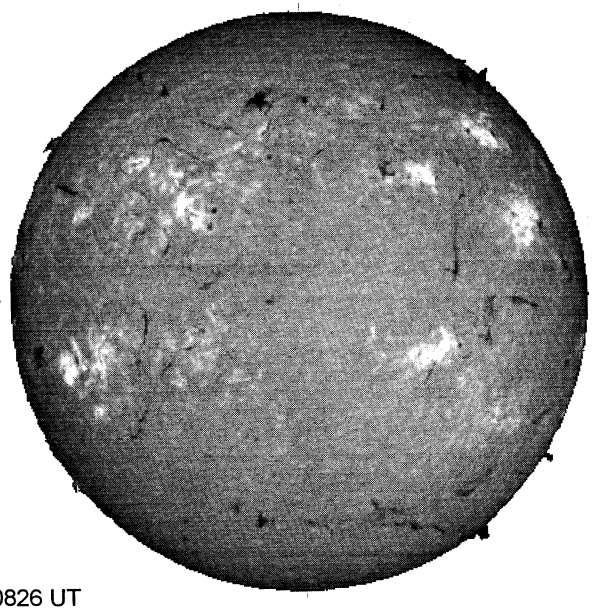


W

17.95 -
18.90 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

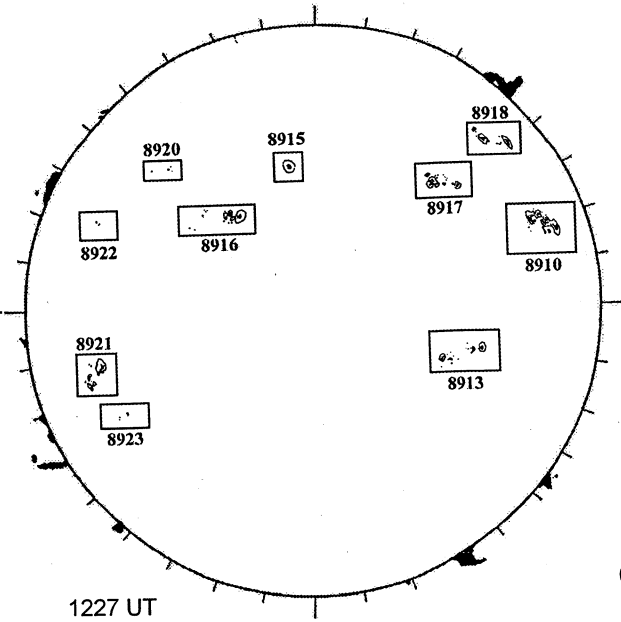


E-

0826 UT

S

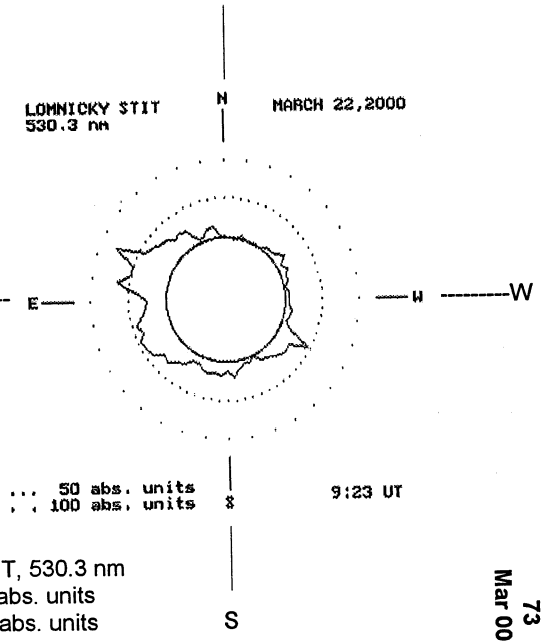
RAMEY SUNSPOT



1227 UT
0918 UT LOMN Prom

S

LOMNICKY PEAK CORONA (1.04 Radii)----



0923 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

73
Mar 00

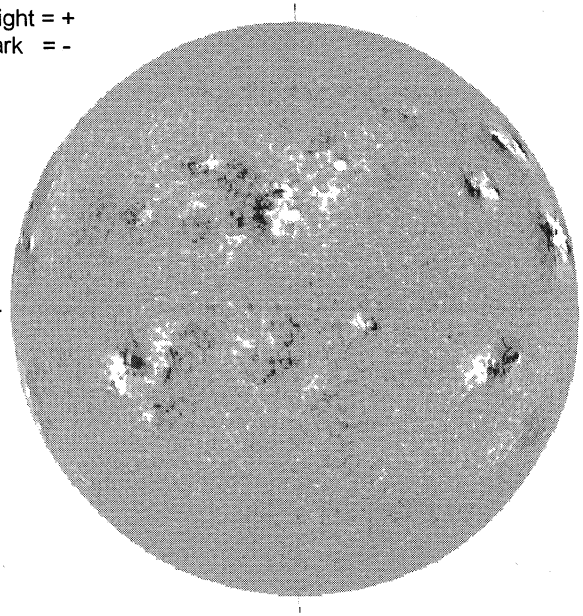
MARCH 23, 2000 (P= -25.53, Bo = -6.94, Lo = 7.99)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



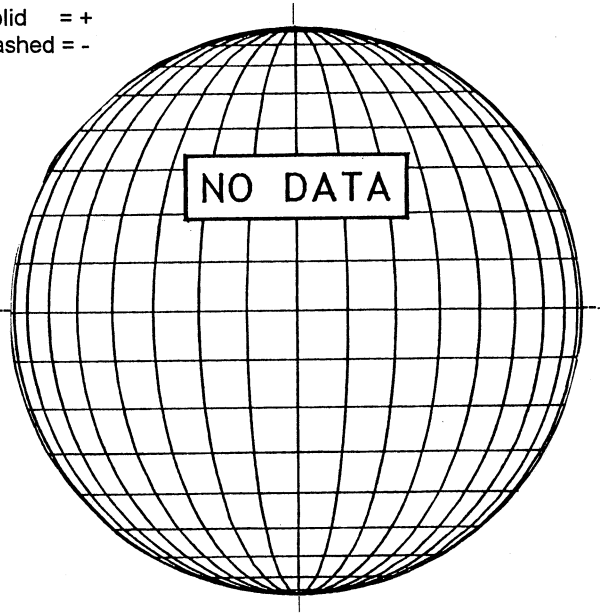
E--

1537 UT

STANFORD MAGNETOGRAM

N

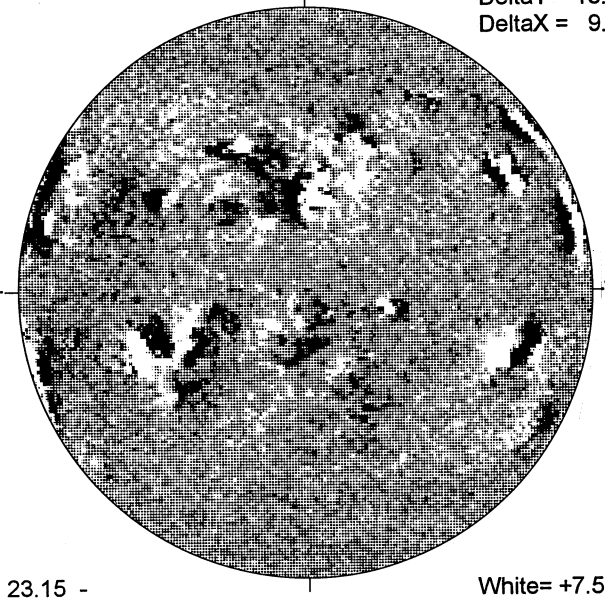
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

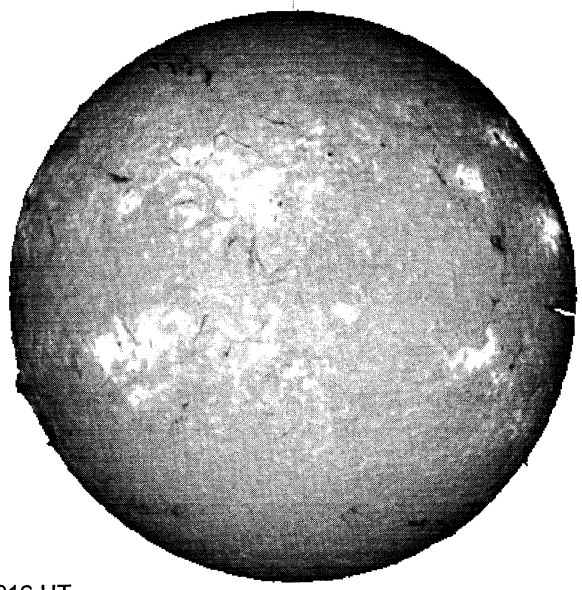


W

23.15 -
24.11 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

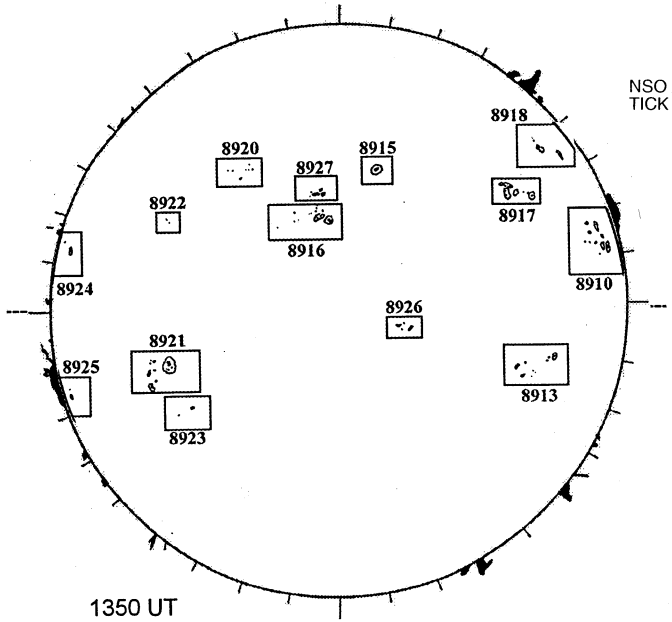


E--

1016 UT

S

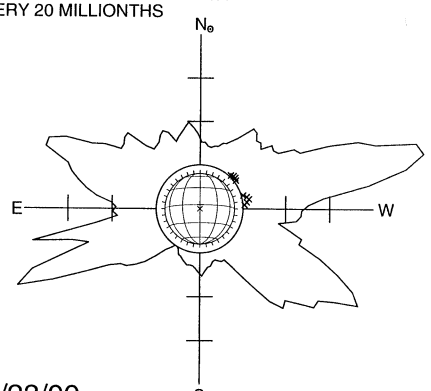
RAMEY SUNSPOT



1350 UT
0619 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



W

03/23/00
(DOY 83)

FE XIV 20:43 UT 1.15 R⊙
xxxxx CA XV 21:06 UT 1.15 R⊙

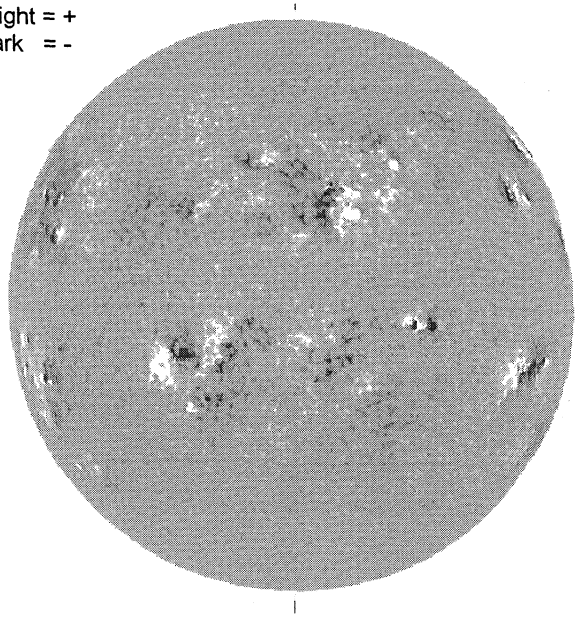
S

MARCH 24, 2000 (P= -25.63, Bo = -6.90, Lo = 354.81)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E-

1529 UT

STANFORD MAGNETOGRAM

N

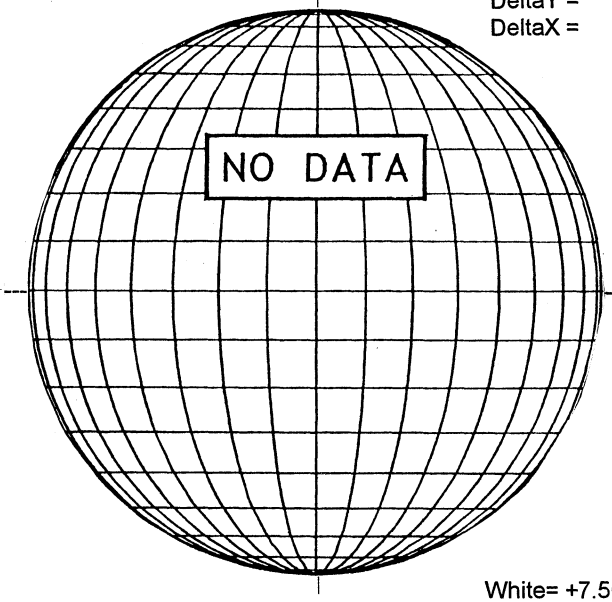
Solid = +
Dashed = -

2227 UT

MT. WILSON MAGNETOGRAM

N

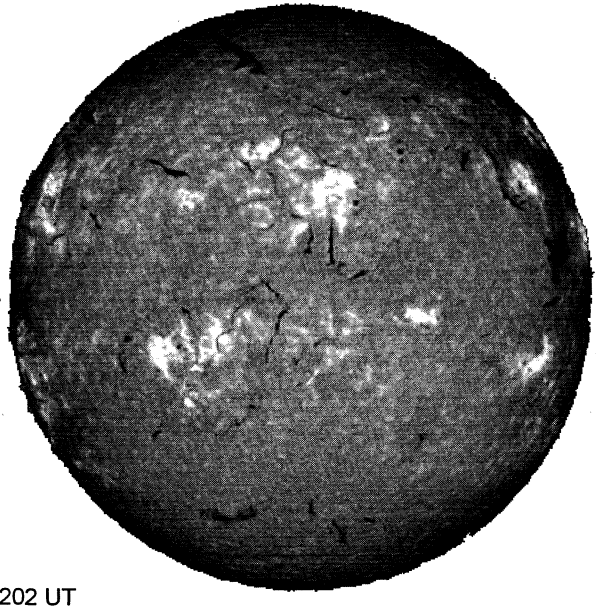
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

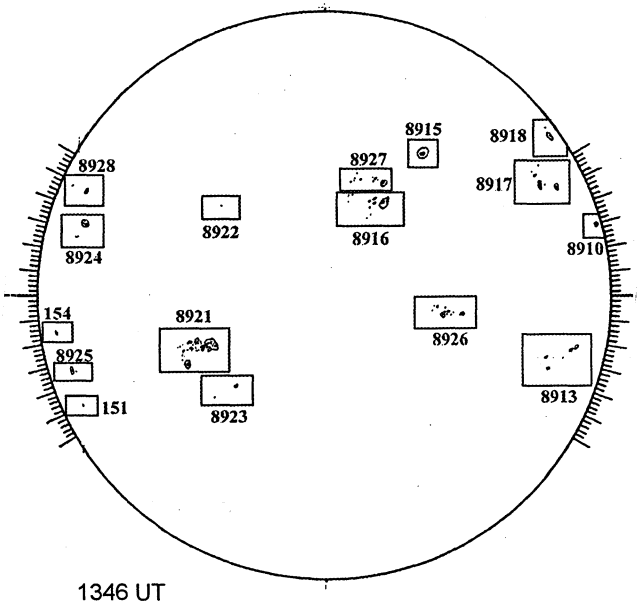


E-

1202 UT

S

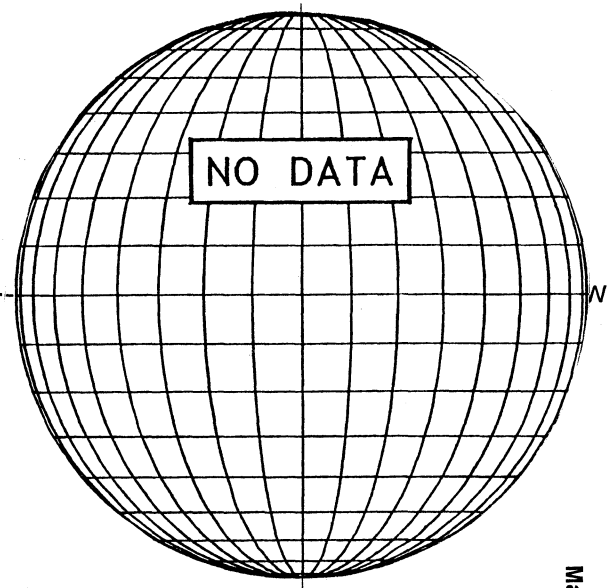
RAMEY SUNSPOT



1346 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----



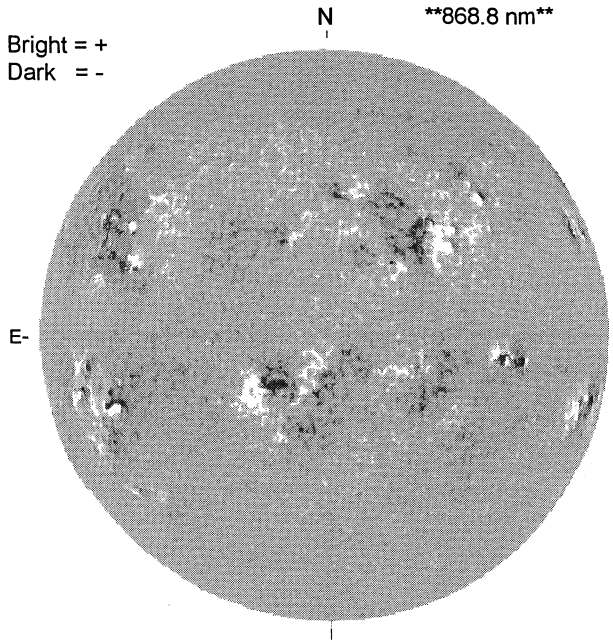
W

S

75
Mar 00

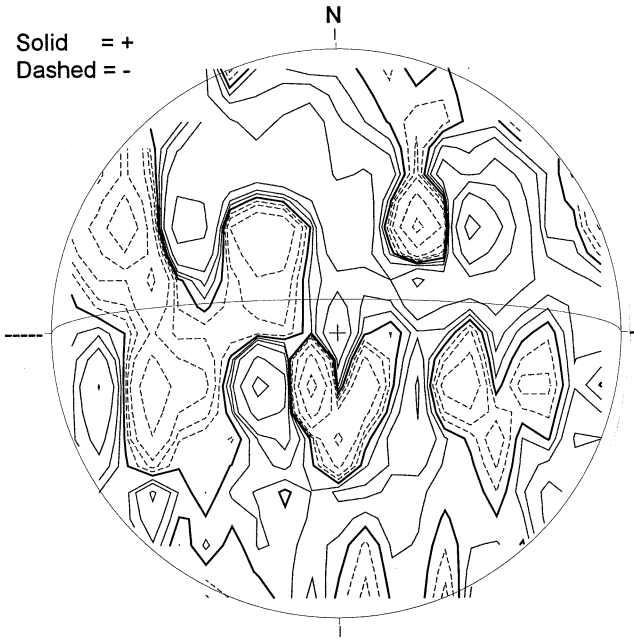
MARCH 25, 2000 (P= -25.73, Bo = -6.86, Lo = 341.62)

KITT PEAK MAGNETOGRAM



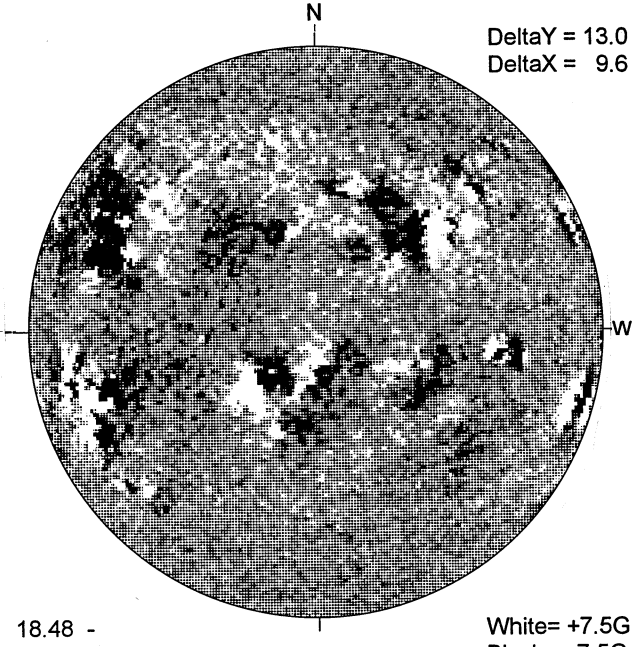
1522 UT

STANFORD MAGNETOGRAM



2011 UT

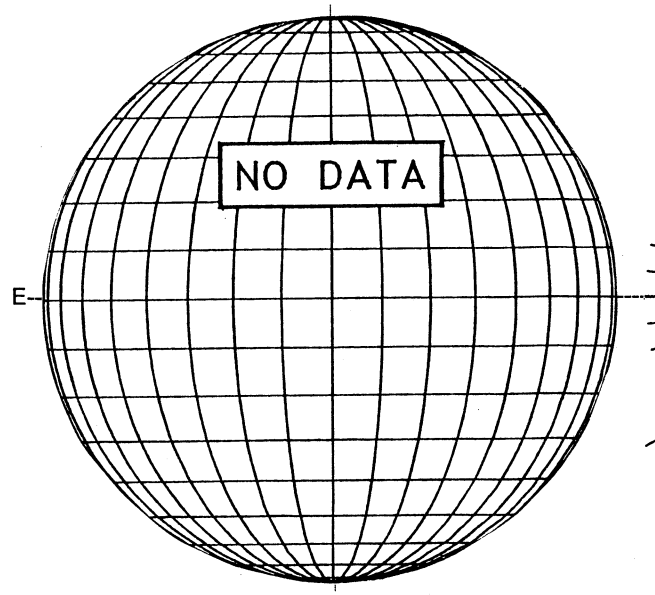
MT. WILSON MAGNETOGRAM



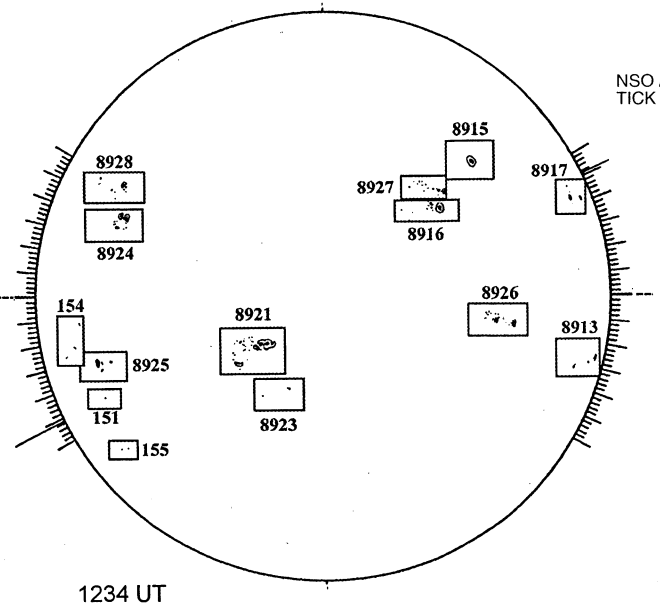
18.48 -
19.44 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

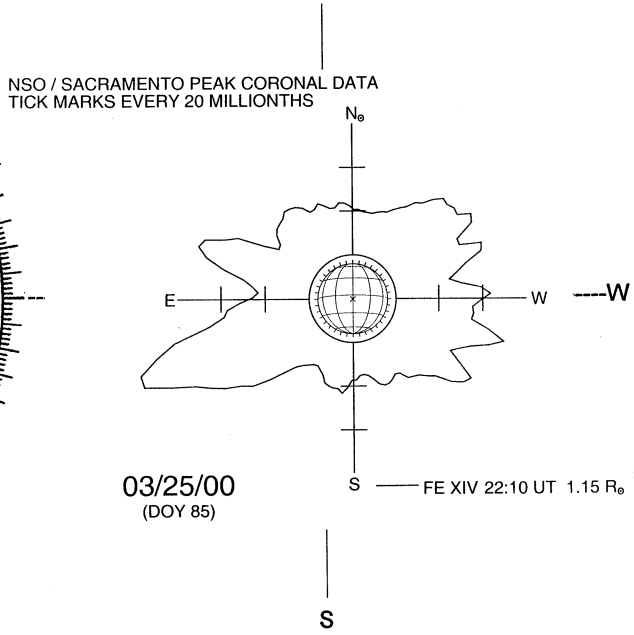


RAMEY SUNSPOT



1234 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

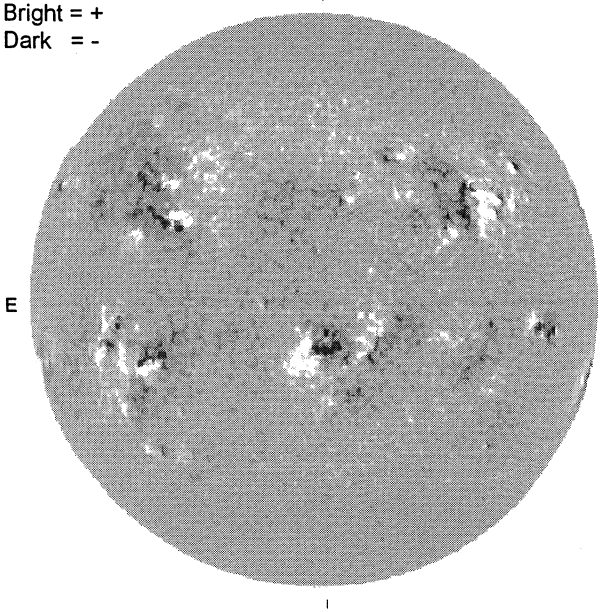


MARCH 26, 2000 (P= -25.81, Bo = -6.82, Lo = 328.43)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E

1604 UT

STANFORD MAGNETOGRAM

N

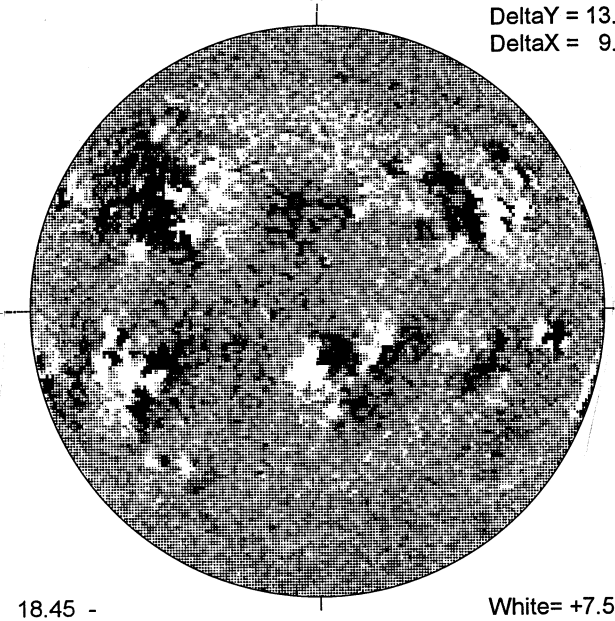
Solid = +
Dashed = -

1842 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

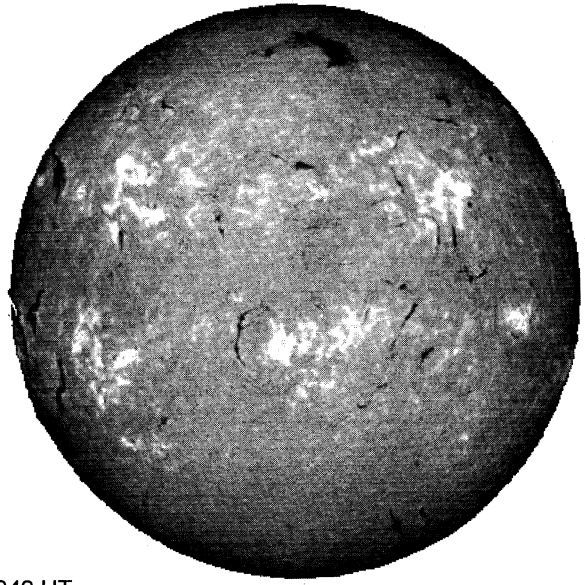


W

18.45 -
19.40 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

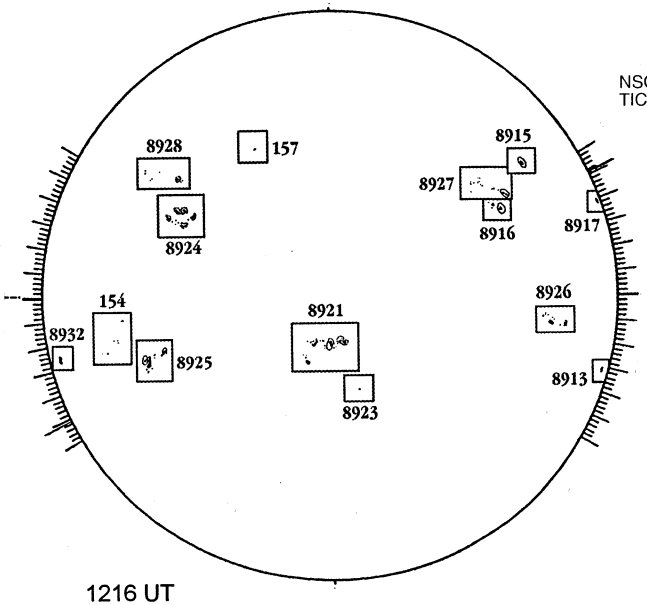


E

1348 UT

S

RAMEY SUNSPOT

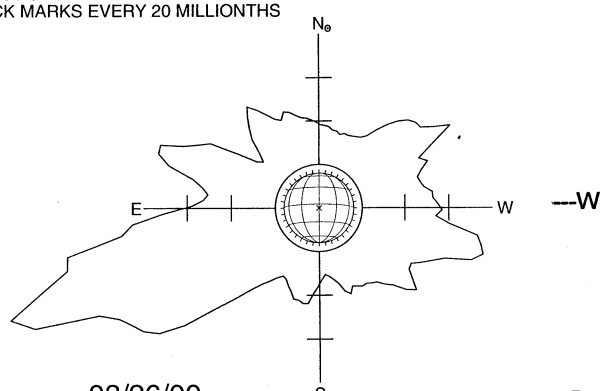


1216 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



03/26/00
(DOY 86)

FE XIV 16:28 UT 1.15 R⊙

W

S

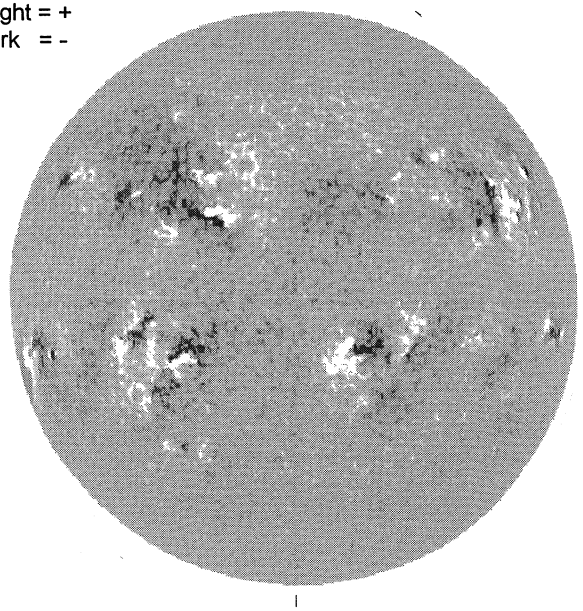
77
Mar 00

MARCH 27, 2000 (P= -25.89, Bo = -6.77, Lo = 315.24)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



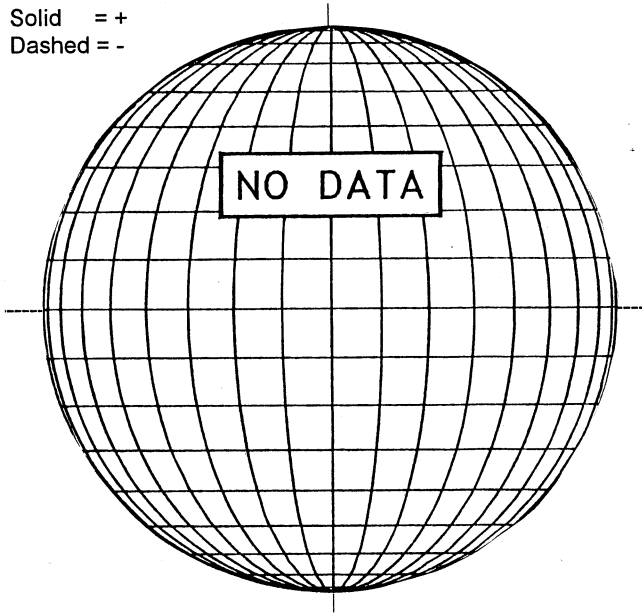
E-

1545 UT

STANFORD MAGNETOGRAM

N

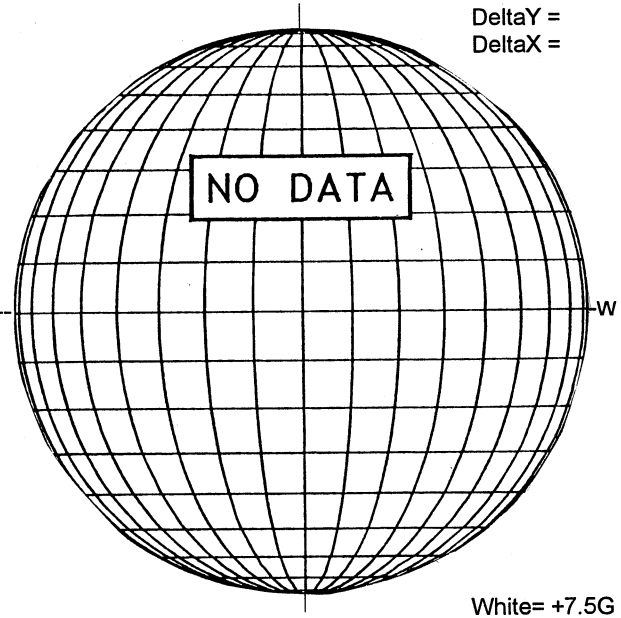
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

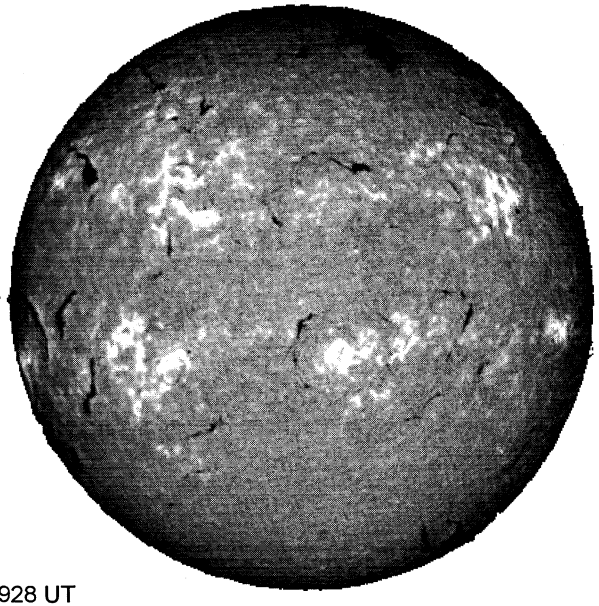
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

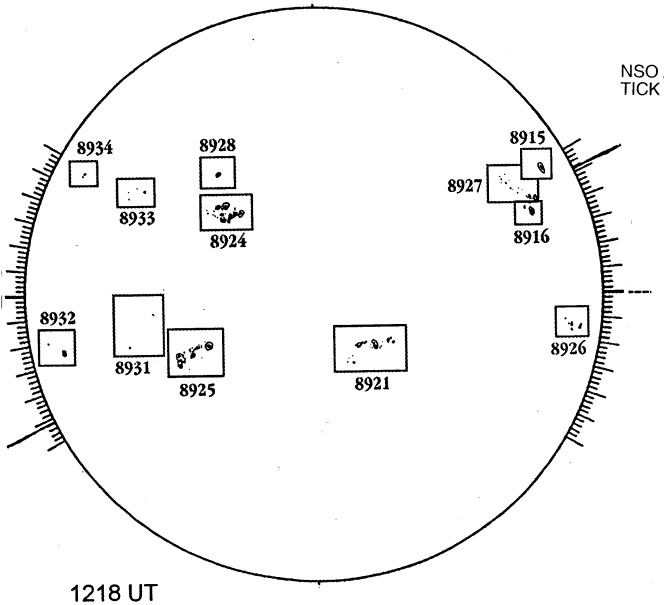


E-

0928 UT

S

RAMEY SUNSPOT

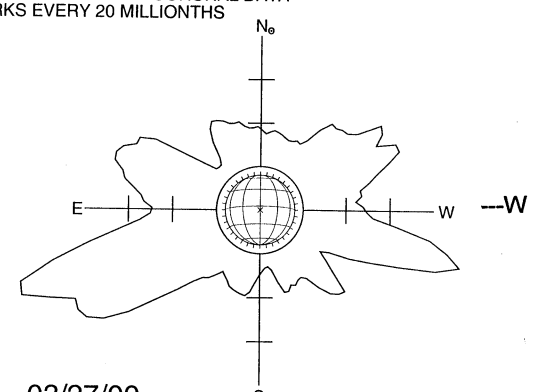


1218 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



---W

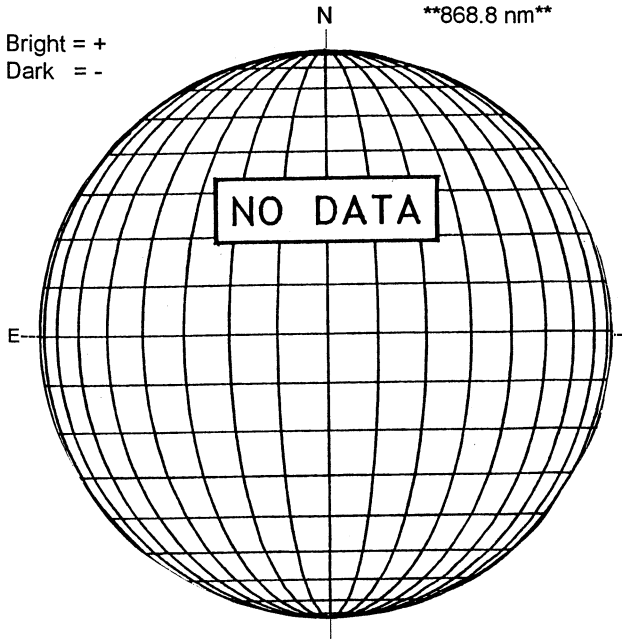
03/27/00
(DOY 87)

FE XIV 17:03 UT 1.15 R⊙

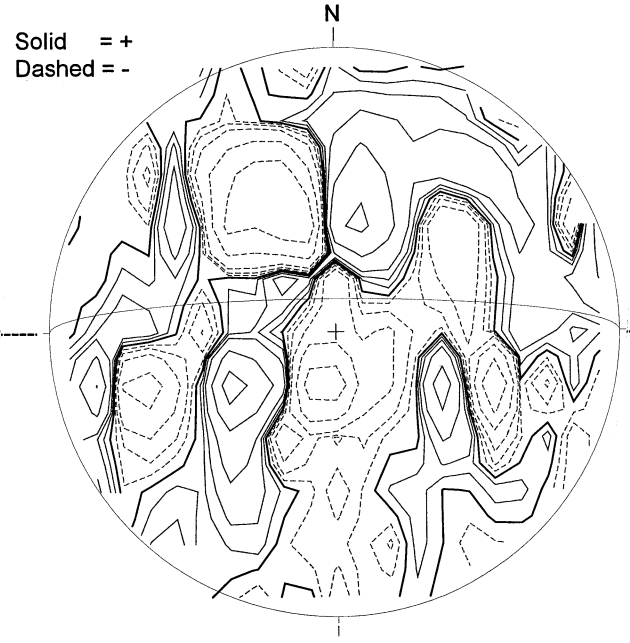
S

MARCH 28, 2000 (P= -25.97, Bo = -6.73, Lo = 302.05)

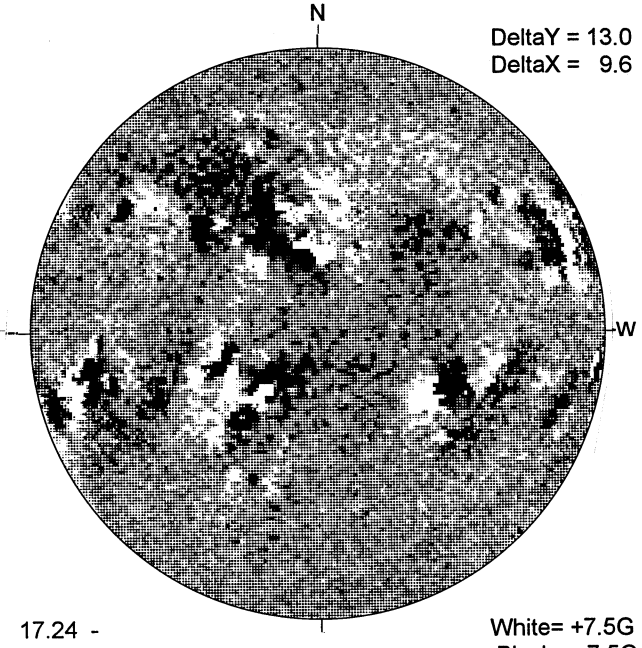
KITT PEAK MAGNETOGRAM



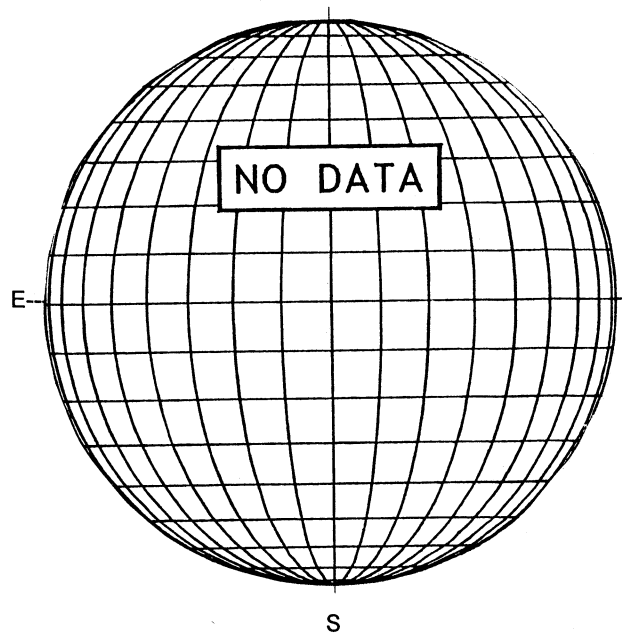
STANFORD MAGNETOGRAM



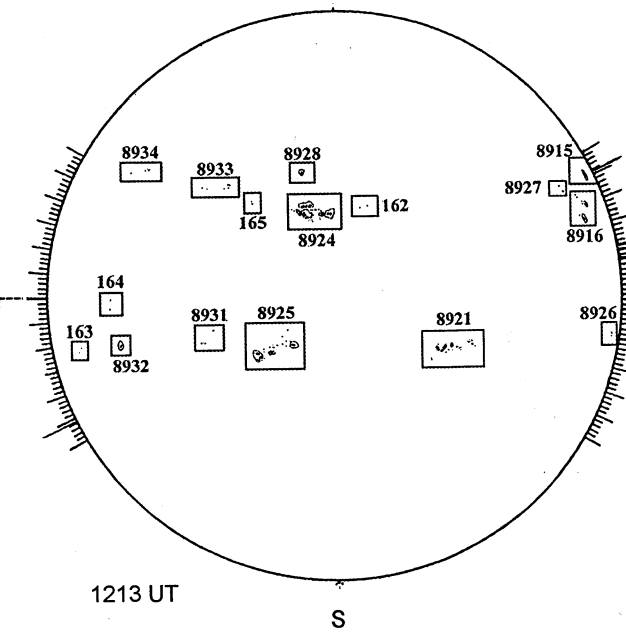
MT. WILSON MAGNETOGRAM



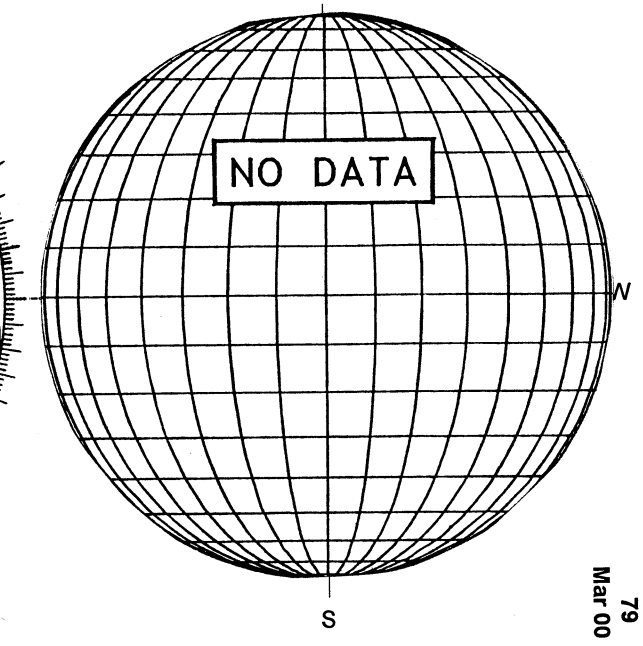
MEUDON H-ALPHA



RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)----



79
Mar 00

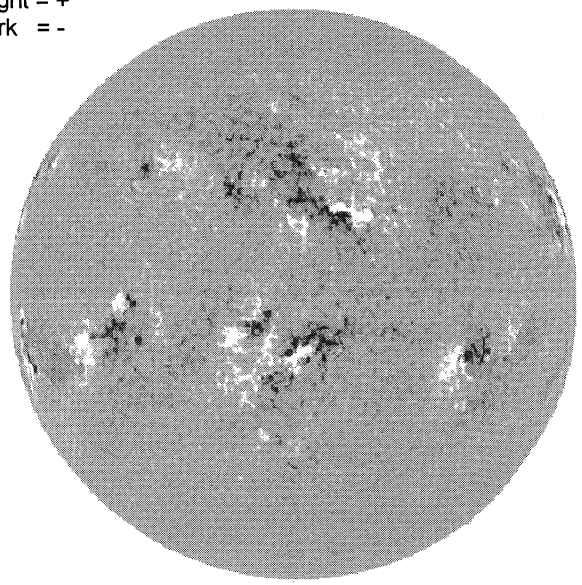
MARCH 29, 2000 (P= -26.03, Bo = -6.68, Lo = 288.86)

KITT PEAK MAGNETOGRAM

N

868.8 nm

Bright = +
Dark = -



E--

1559 UT

STANFORD MAGNETOGRAM

N

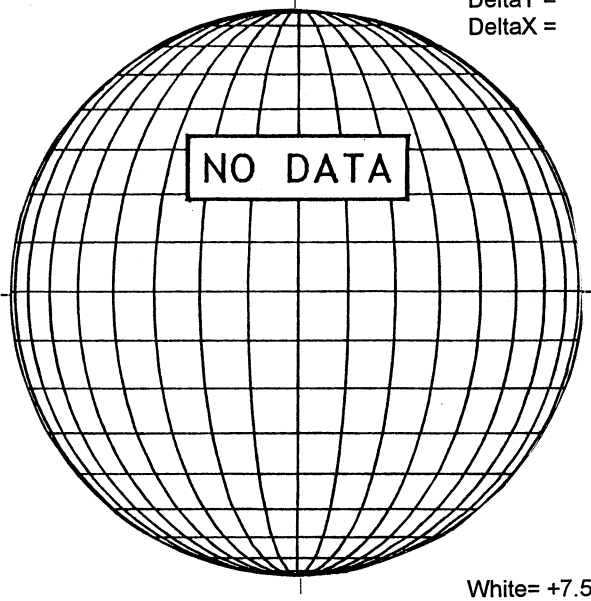
Solid = +
Dashed = -

2024 UT

MT. WILSON MAGNETOGRAM

N

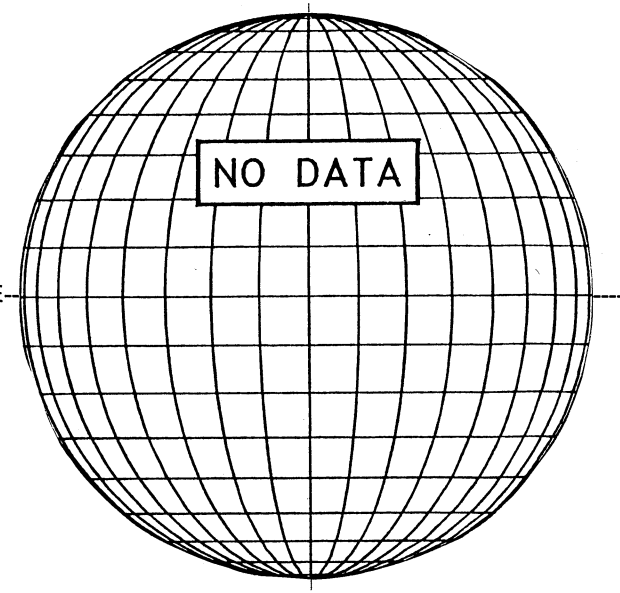
DeltaY =
DeltaX =



W

White= +7.5G
Black = -7.5G

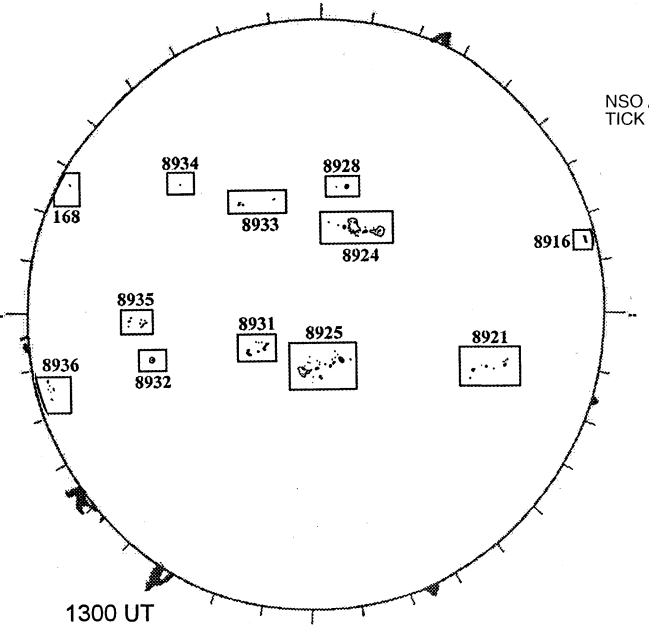
MEUDON H-ALPHA



E--

S

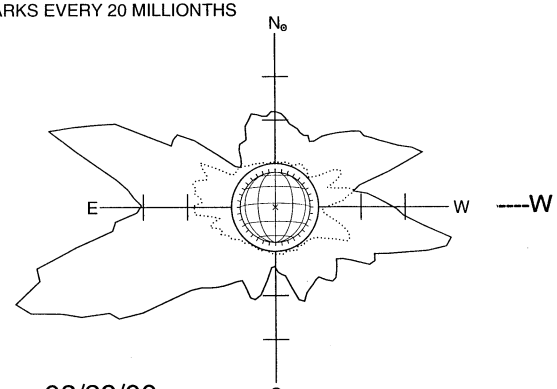
RAMEY SUNSPOT



1300 UT
0906 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



----W

03/29/00
(DOY 89)

FE XIV 15:42 UT 1.15 R⊙
FE X 16:30 UT 1.15 R⊙
xxxxx CA XV 16:14 UT 1.15 R⊙
NO CA XV ACTIVITY TODAY

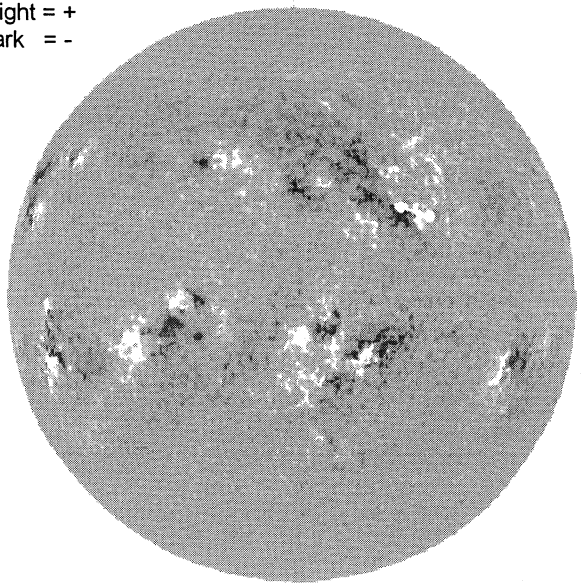
S

MARCH 30, 2000 (P= -26.09, Bo = -6.63, Lo = 275.67)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E-

1758 UT

STANFORD MAGNETOGRAM

N

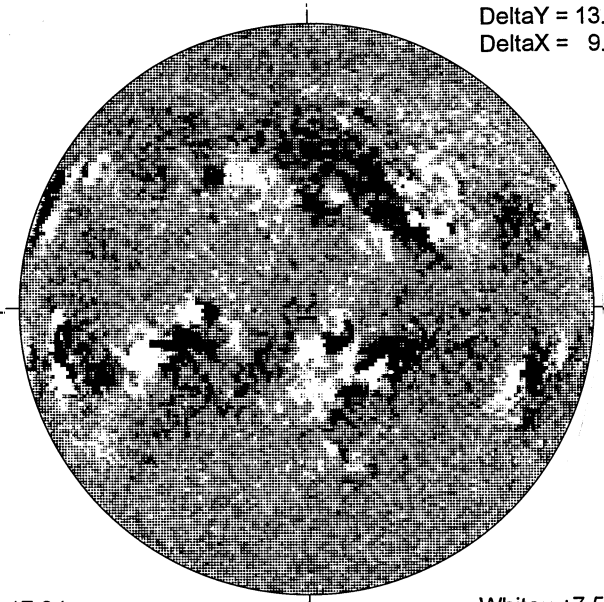
Solid = +
Dashed = -

2153 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

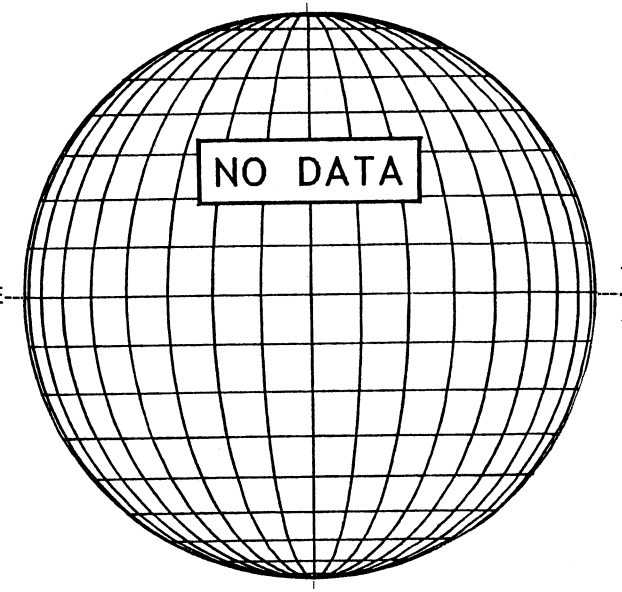


-W

17.94 -
18.89 UT

White= +7.5G
Black = -7.5G

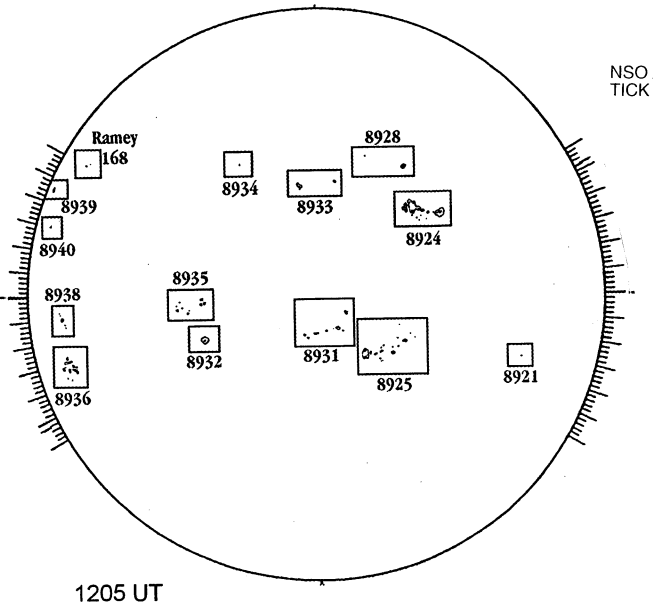
MEUDON H-ALPHA



E-

S

RAMEY SUNSPOT

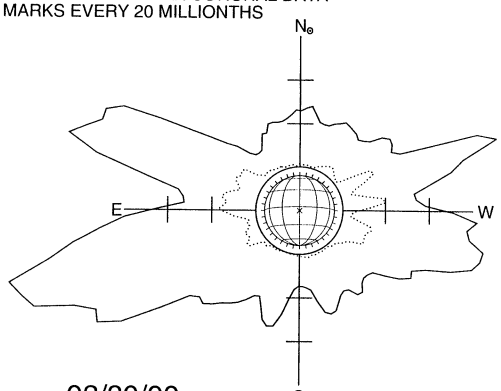


1205 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS



---W

03/30/00
(DOY 90)

FE XIV 14:37 UT 1.15 R⊙
FE X 15:30 UT 1.15 R⊙
xxxxx CA XV 15:11 UT 1.15 R⊙
NO CA XV ACTIVITY TODAY

S

81
Mar 00

MARCH 31, 2000 (P= -26.14, Bo = -6.58, Lo = 262.48)

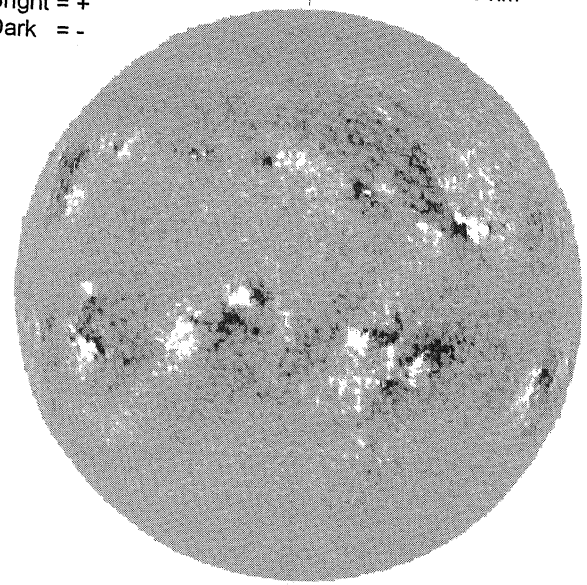
82
Mar 00

KITT PEAK MAGNETOGRAM

Bright = +
Dark = -

N

868.8 nm



E-

1421 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

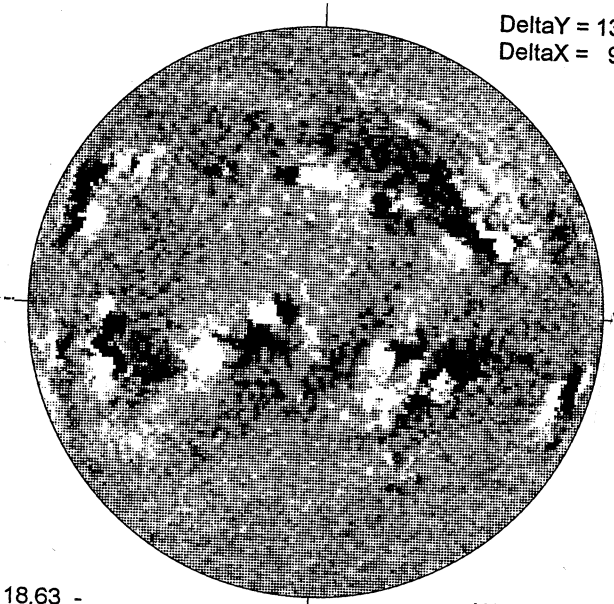
N

2355 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

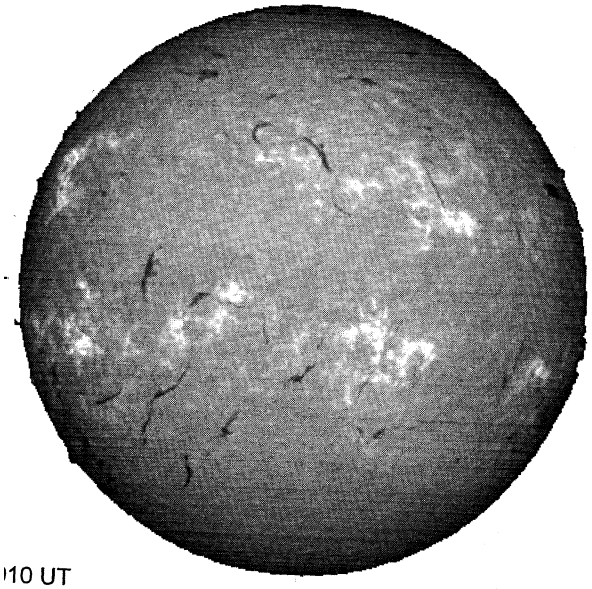


W

18.63 -
19.58 UT

White= +7.5G
Black = -7.5G

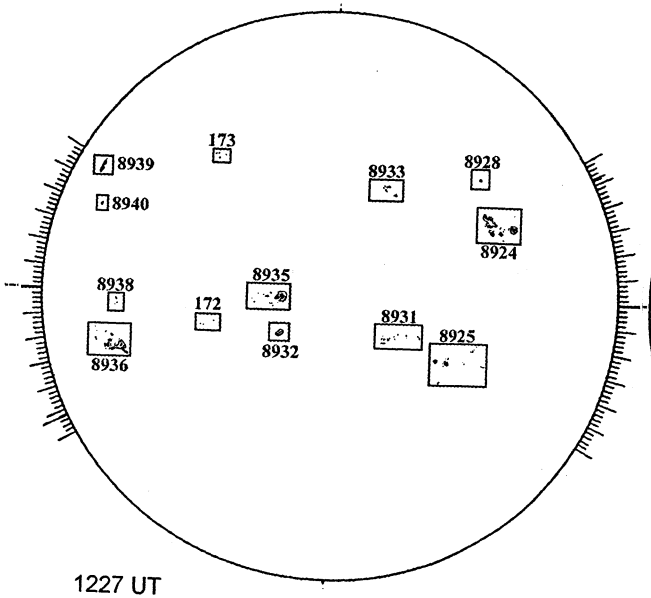
MEUDON H-ALPHA



110 UT

S

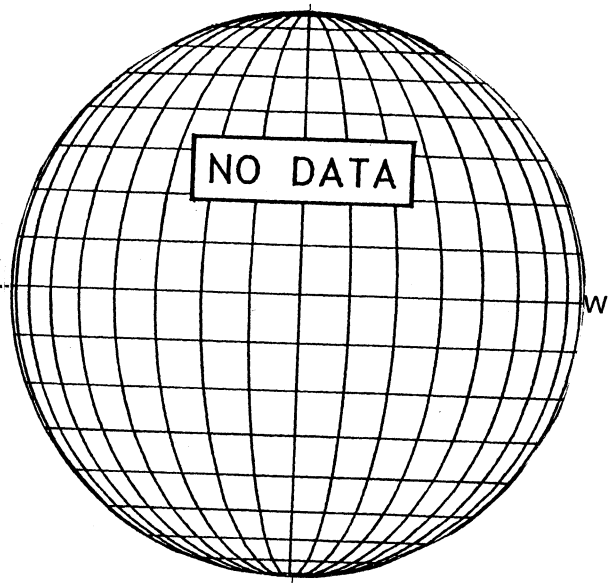
RAMEY SUNSPOT



1227 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

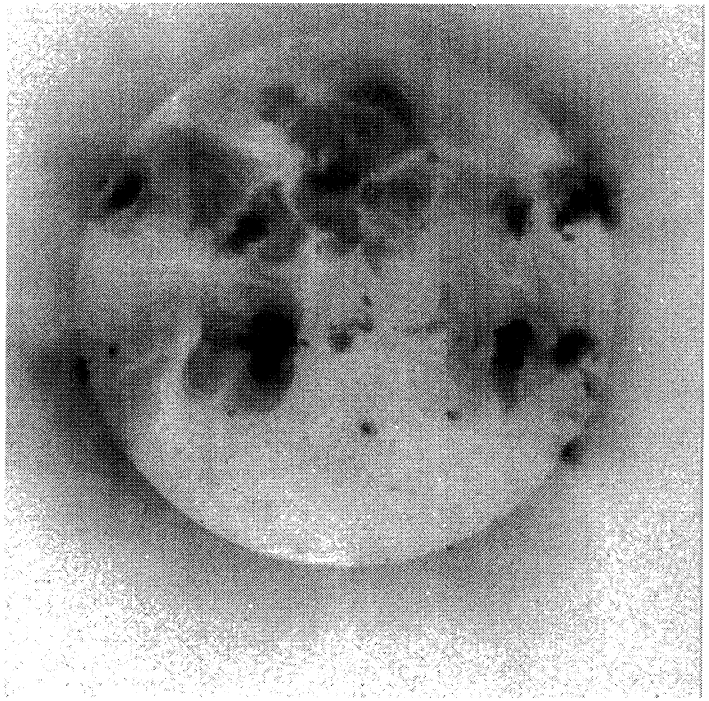


W

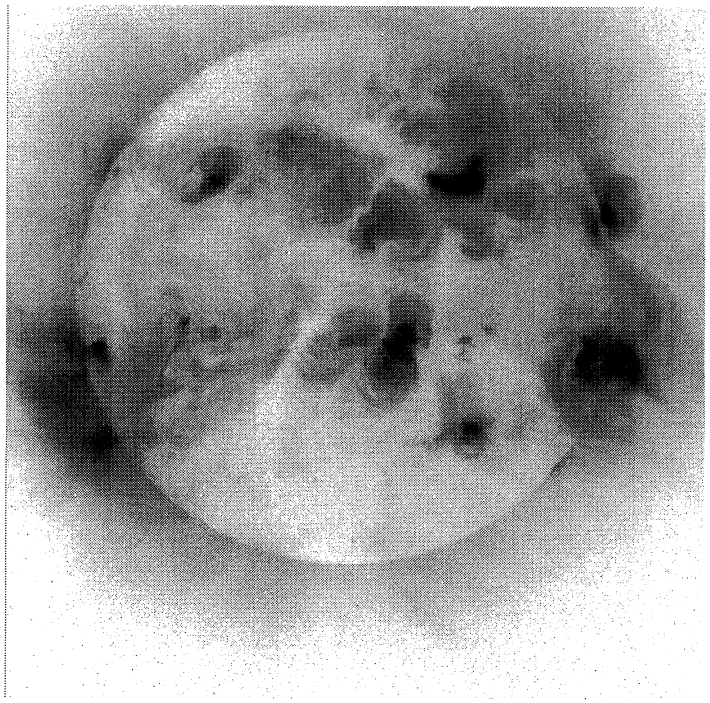
S

YOHKOH SOFT X-RAY TELESCOPE IMAGES

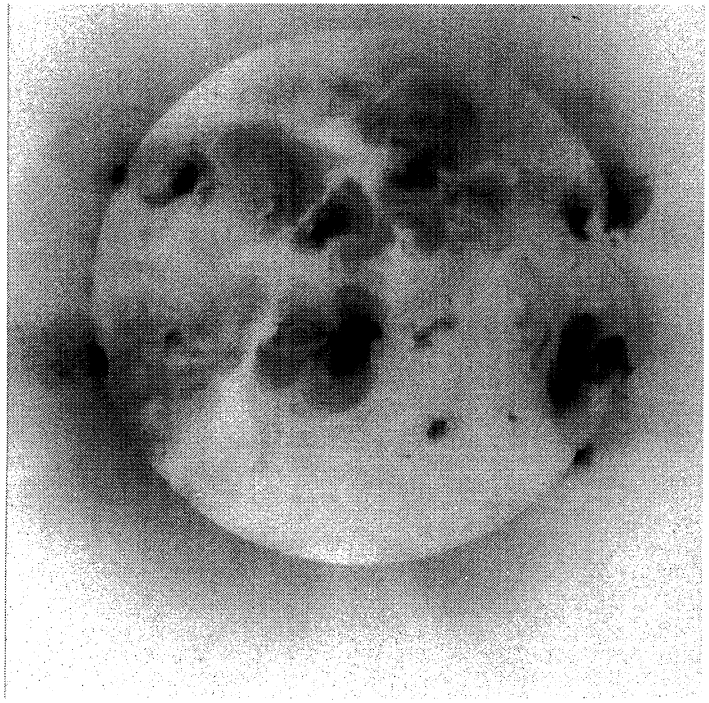
March 2000



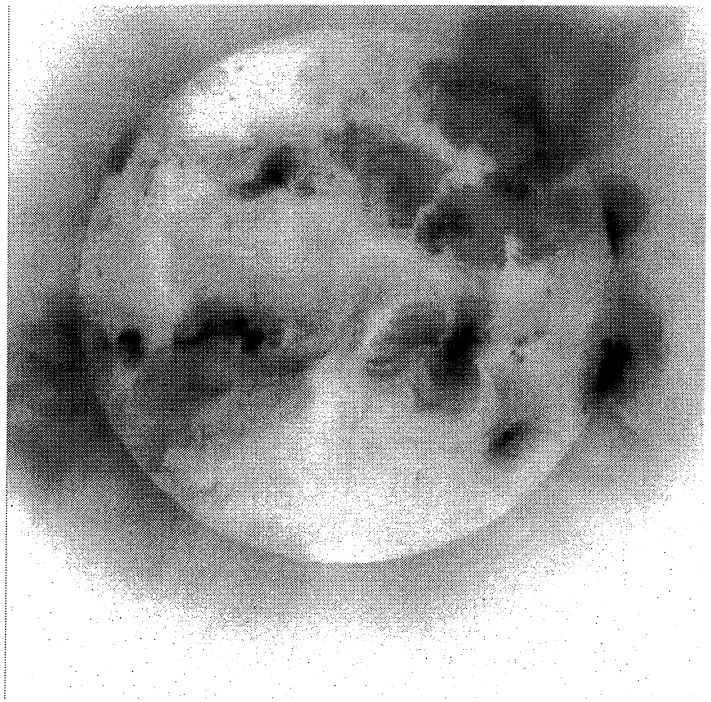
Day 1
11:11:25 UT



Day 3
13:13:59 UT



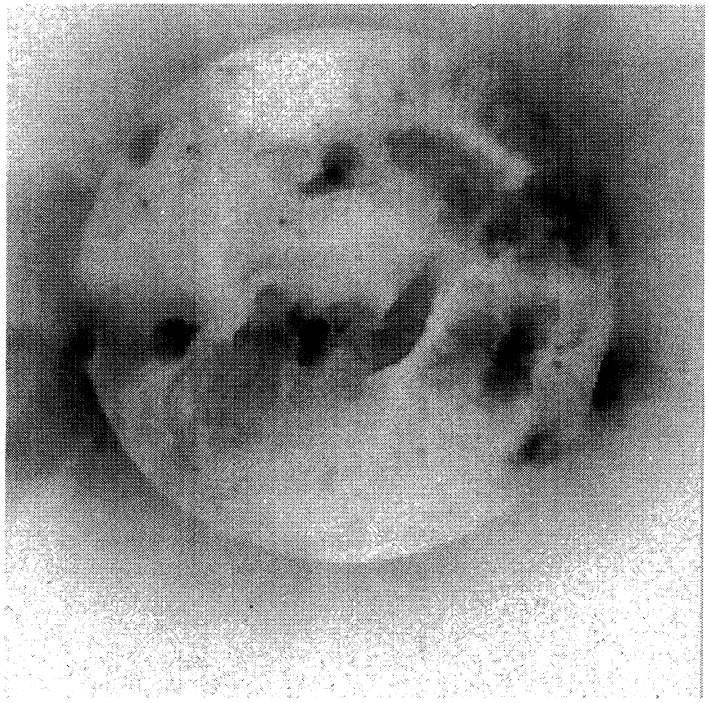
Day 2
13:07:15 UT



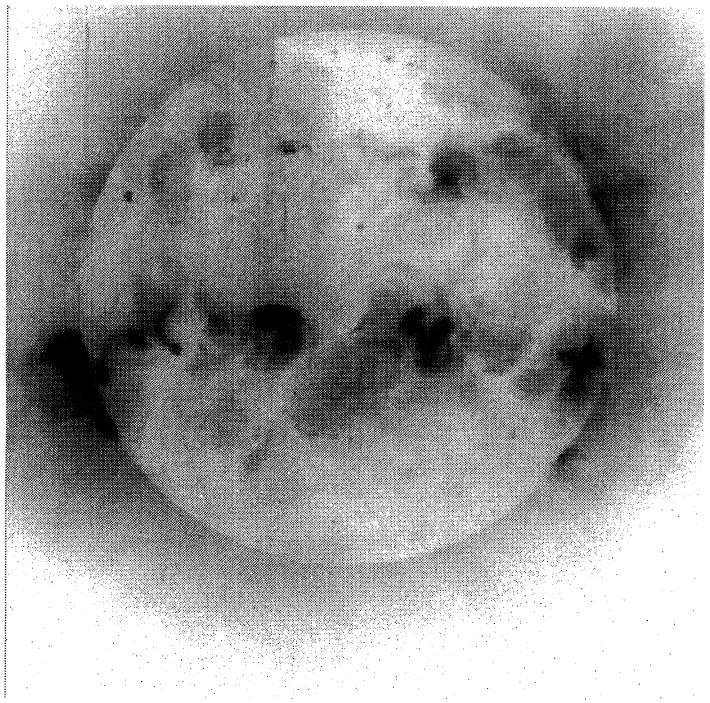
Day 4
13:29:41 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

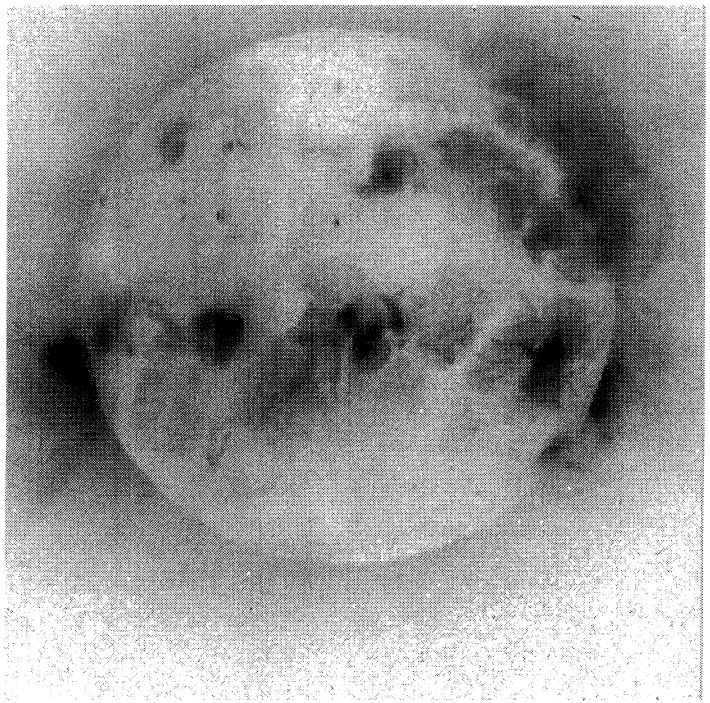
March
2000



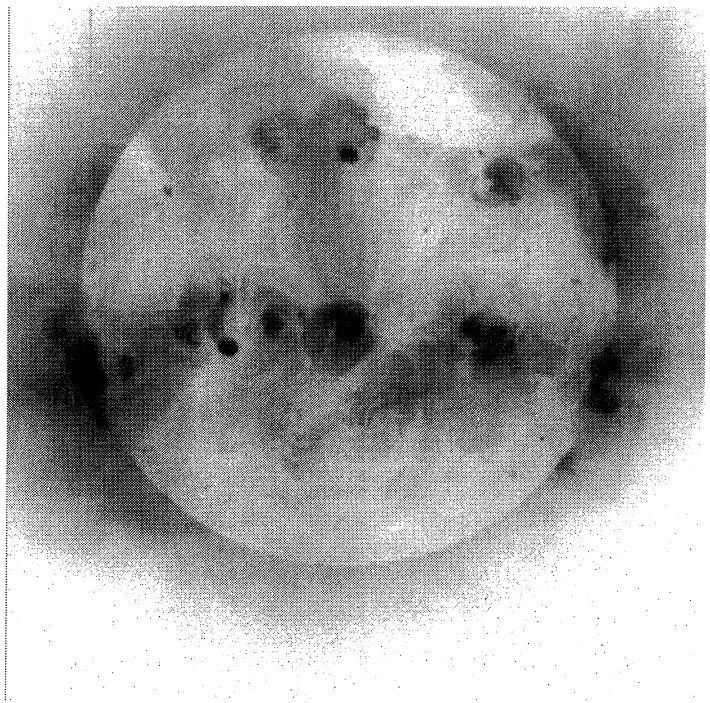
Day 5
15:10:36 UT



Day 7
12:15:22 UT



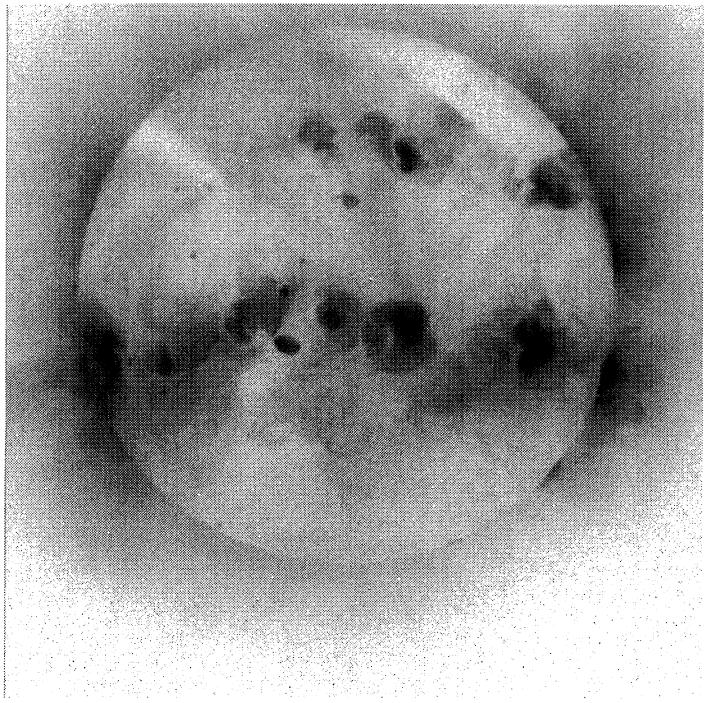
Day 6
12:08:44 UT



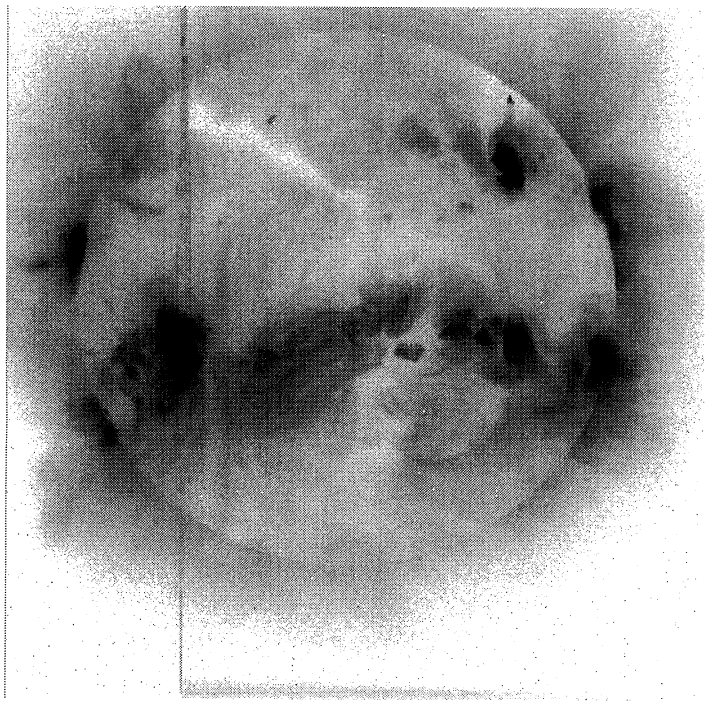
Day 8
12:40:56 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

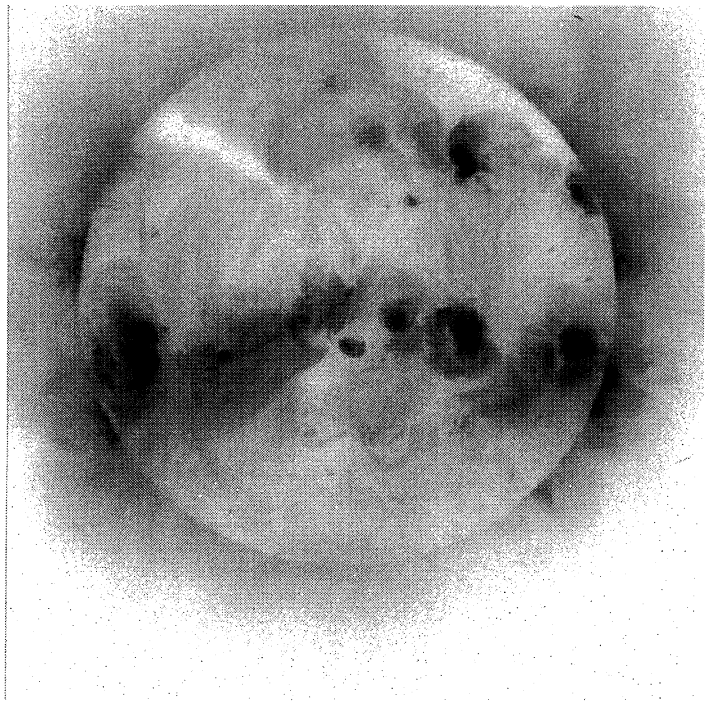
March 2000



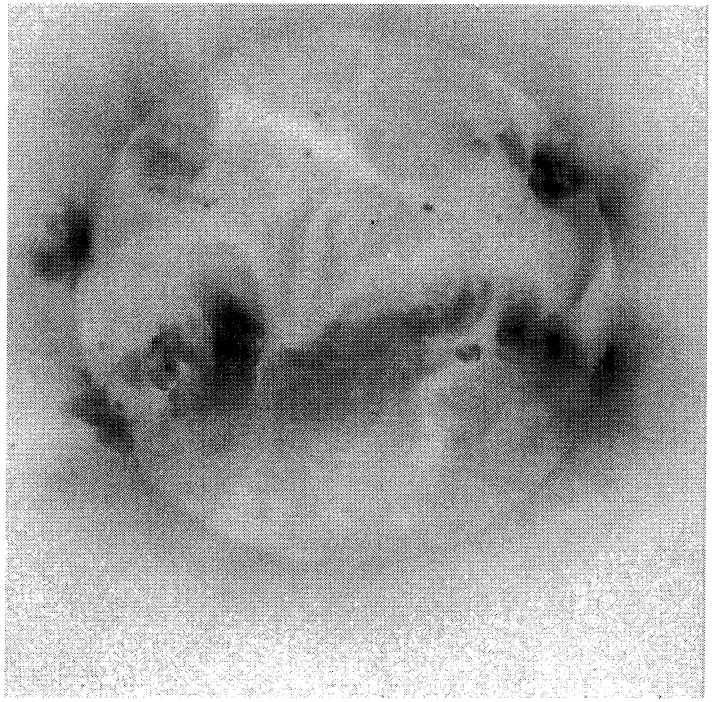
Day 9
12:34:10 UT



Day 11
11:10:51 UT



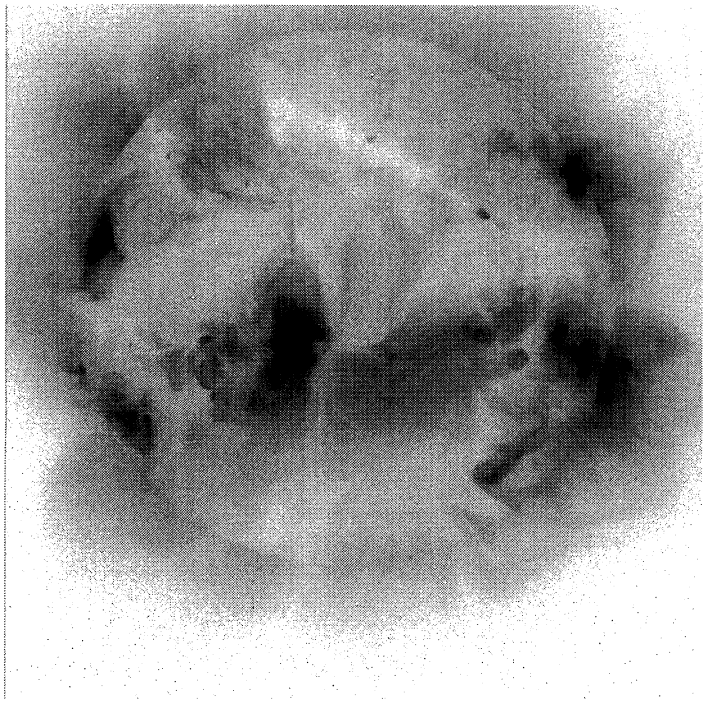
Day 10
12:39:05 UT



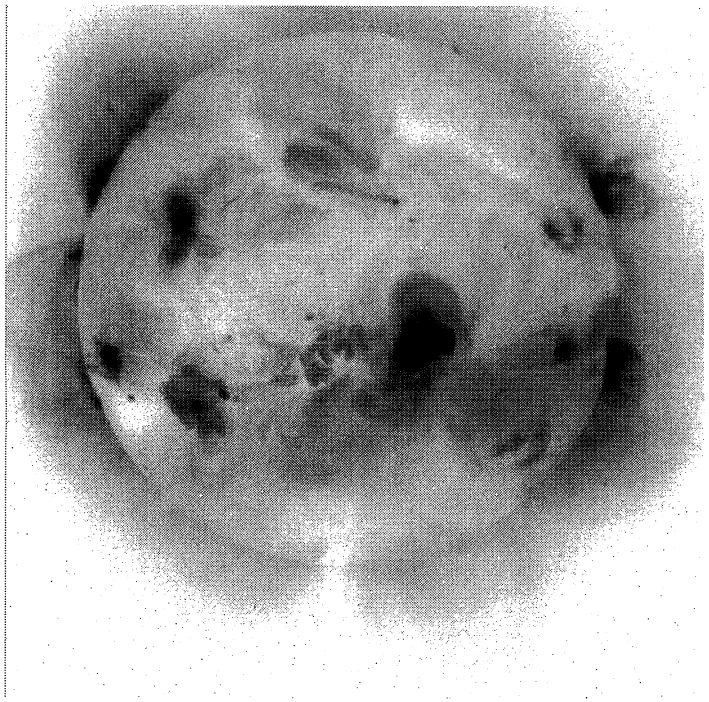
Day 12
11:41:31 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

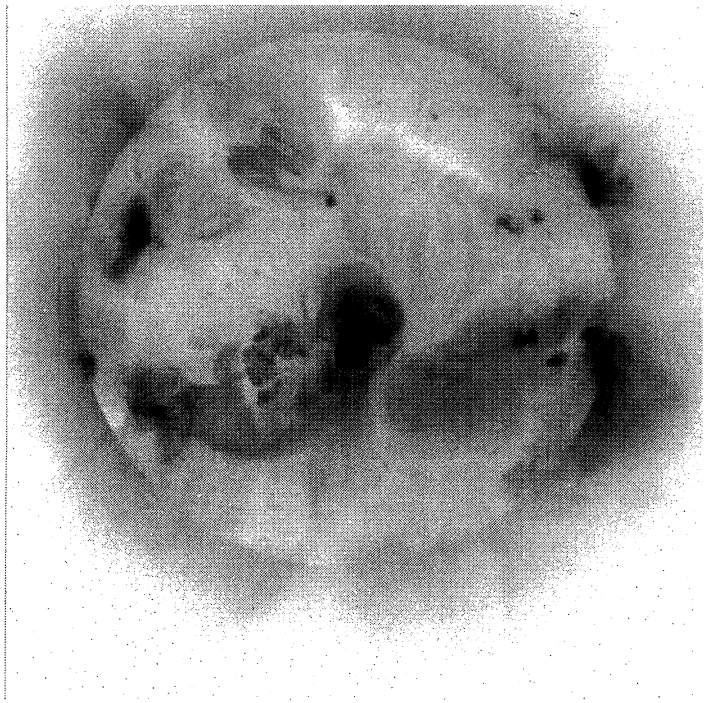
March
2000



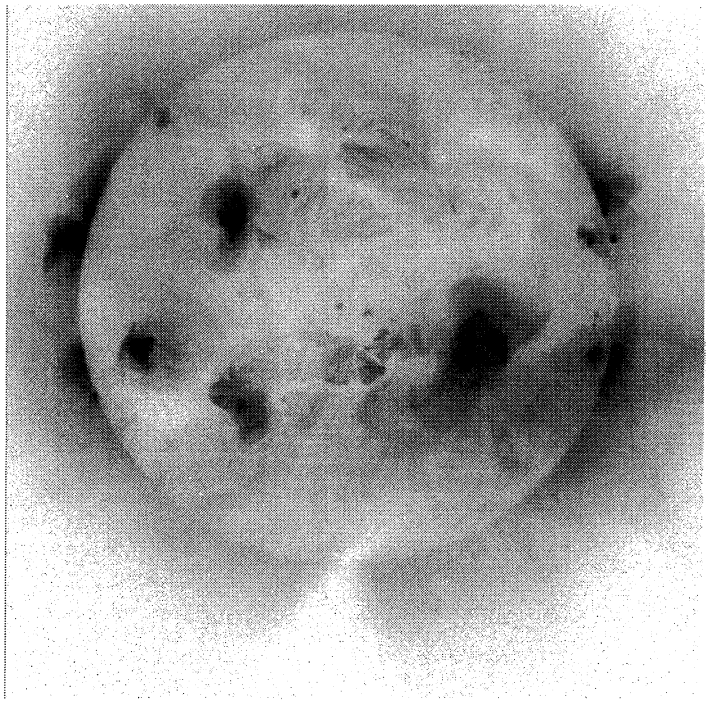
Day 13
11:56:49 UT



Day 15
12:04:16 UT



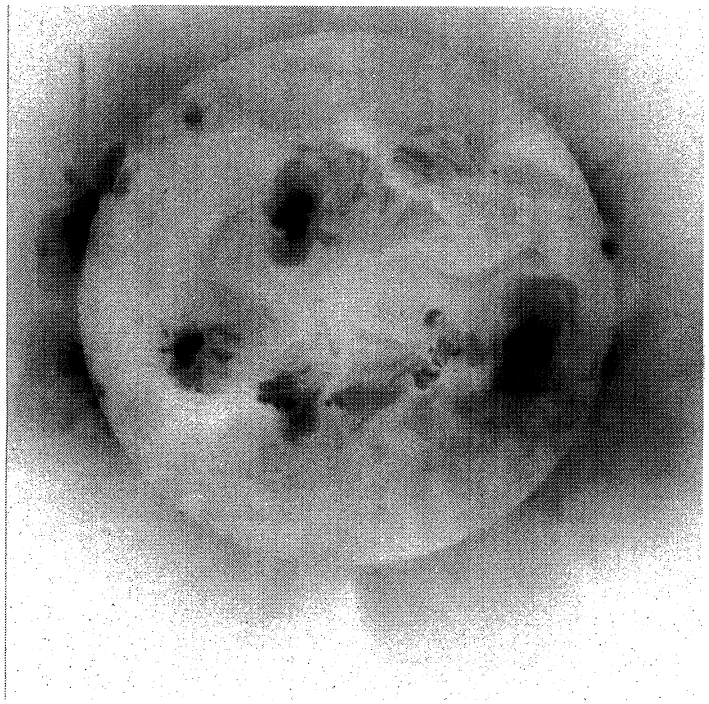
Day 14
12:03:43 UT



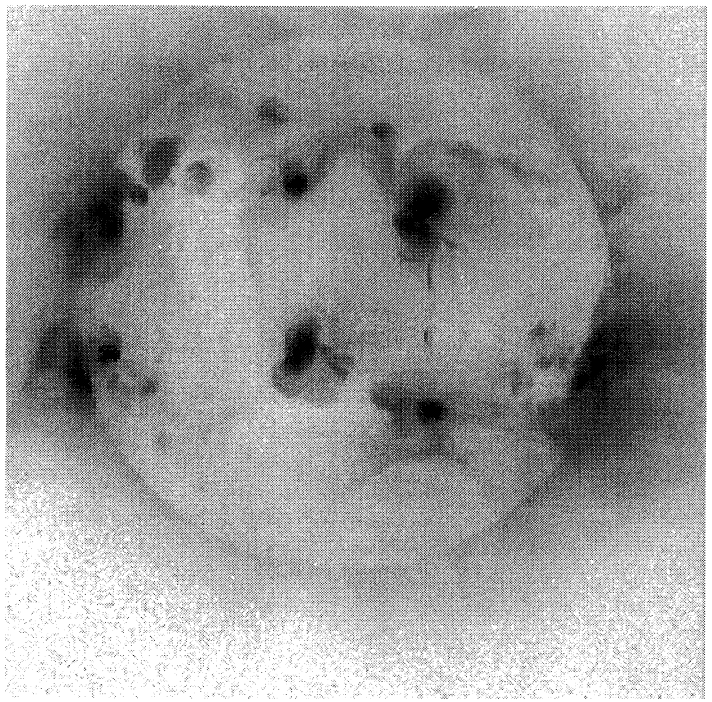
Day 16
10:45:04 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

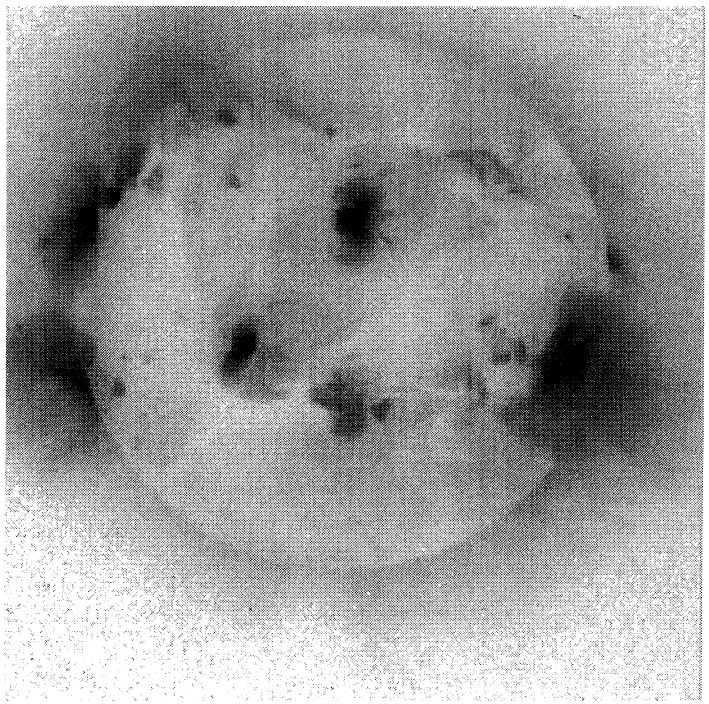
March 2000



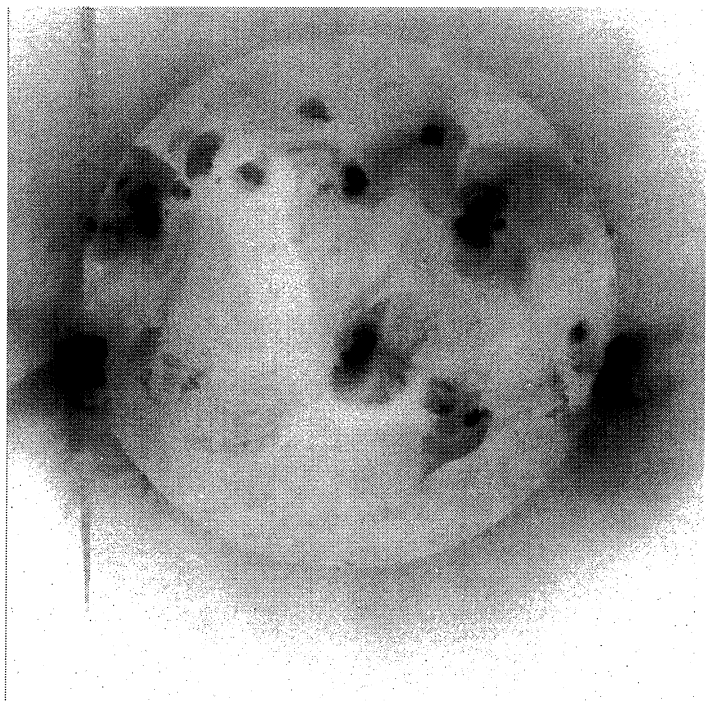
Day 17
10:57:22 UT



Day 19
12:07:38 UT



Day 18
11:57:46 UT

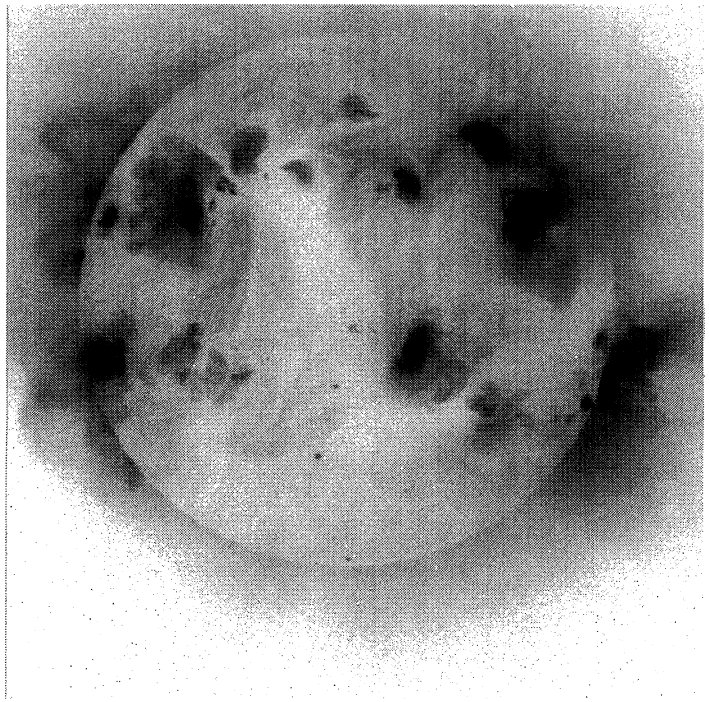


Day 20
09:53:19 UT

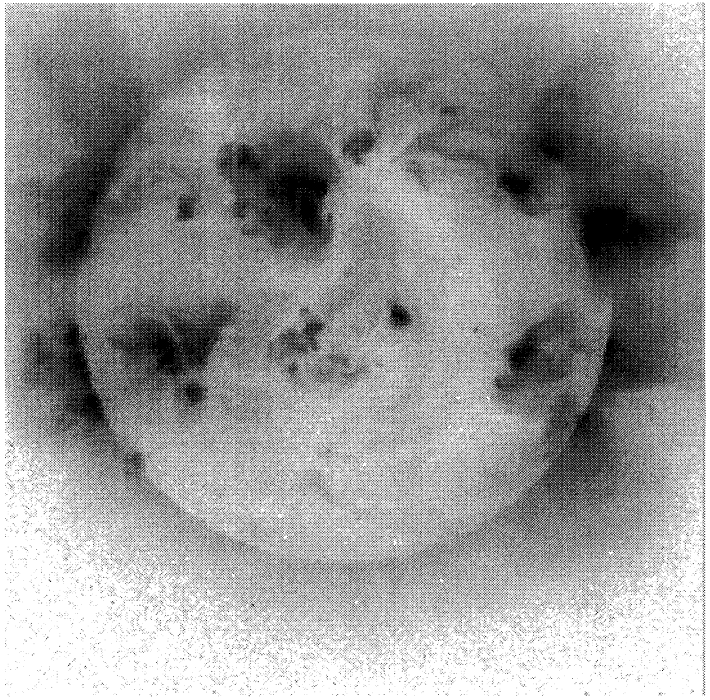
87
Mar 00

YOHKOH SOFT X-RAY TELESCOPE IMAGES

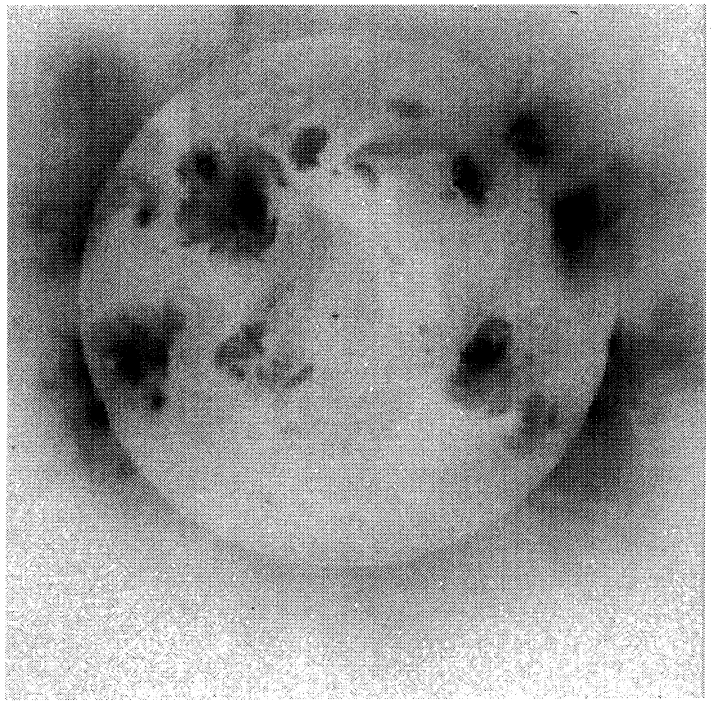
March
2000



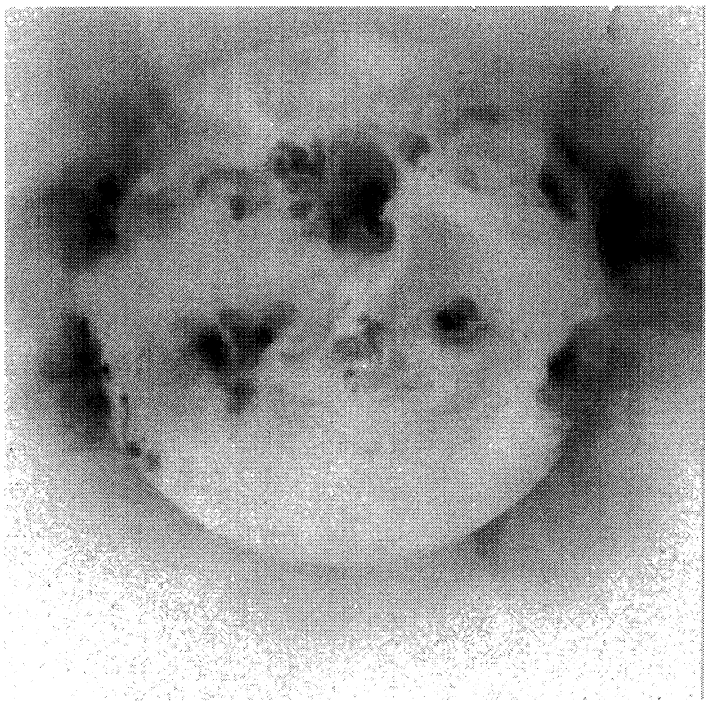
Day 21
08:23:53 UT



Day 23
11:21:13 UT



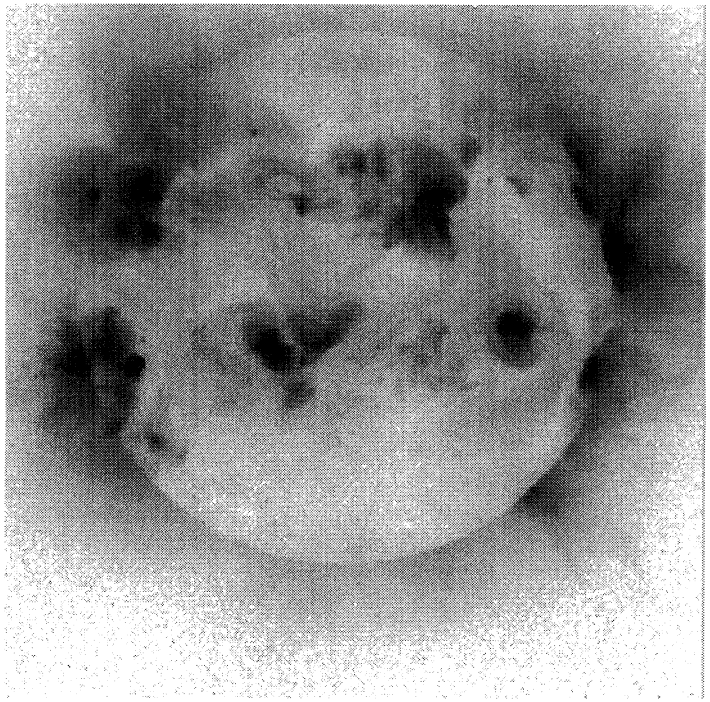
Day 22
11:56:57 UT



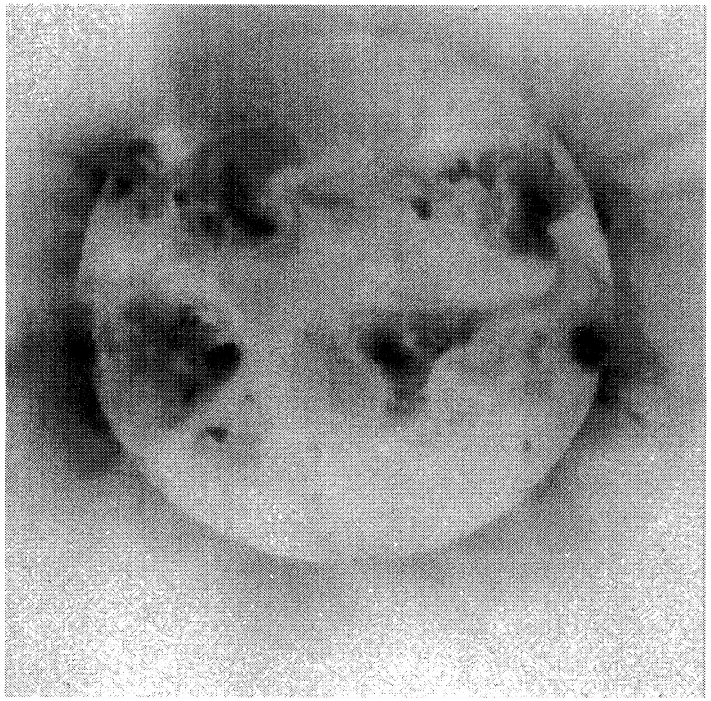
Day 24
10:31:53 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

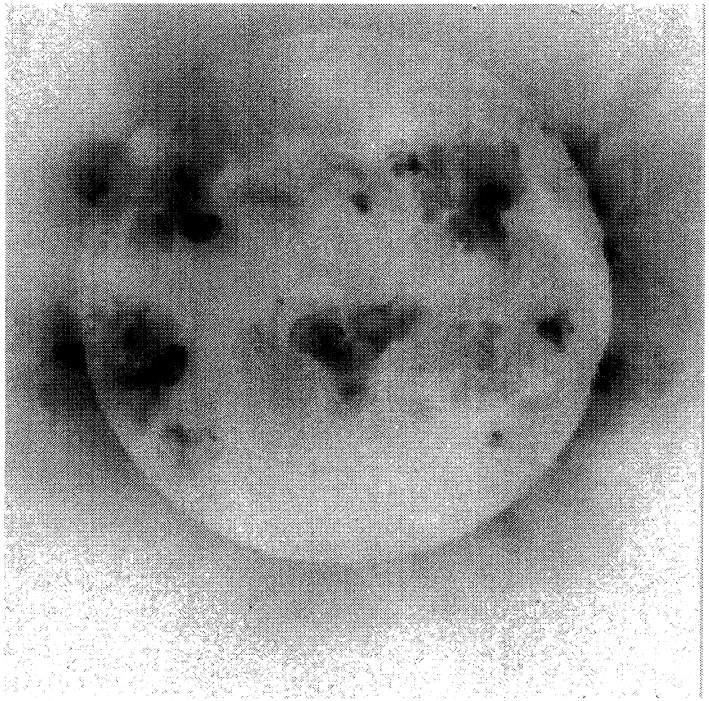
March 2000



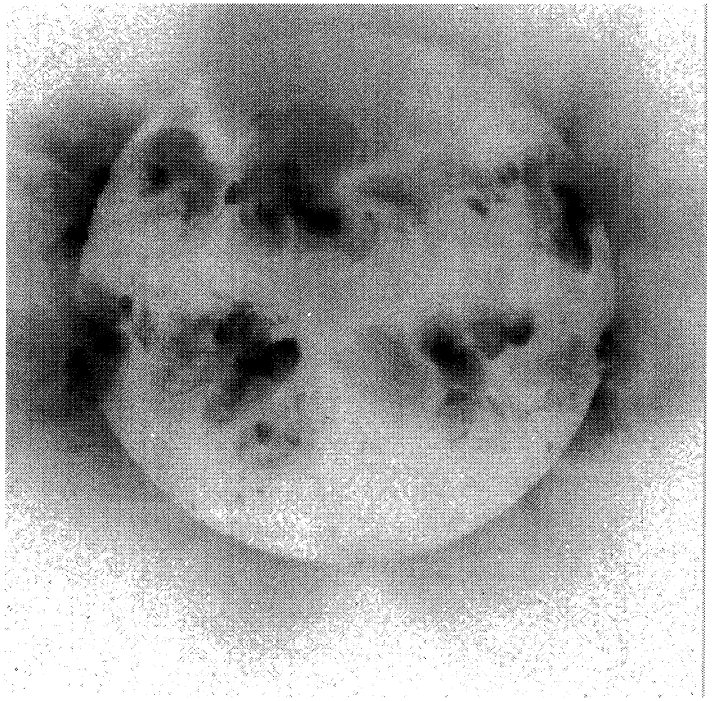
Day 25
11:59:36 UT



Day 27
11:09:12 UT



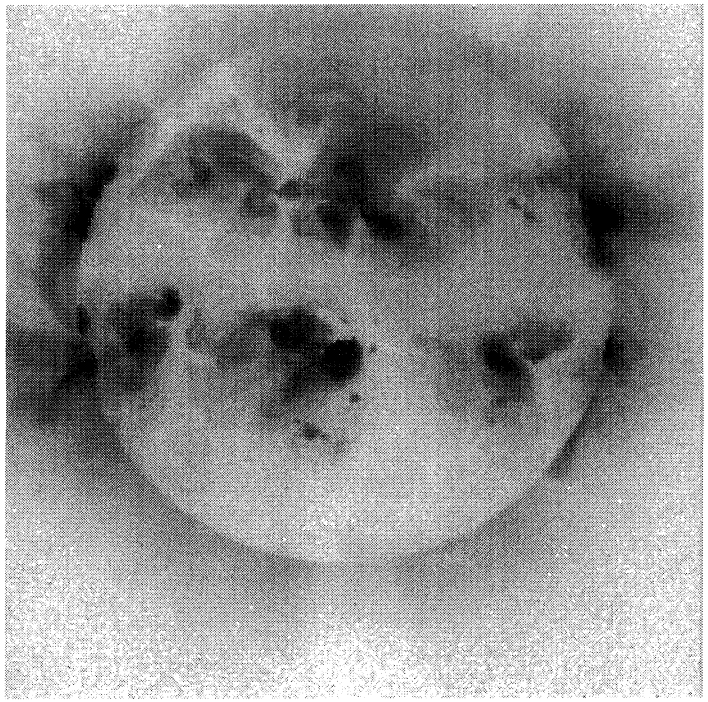
Day 26
11:59:36 UT



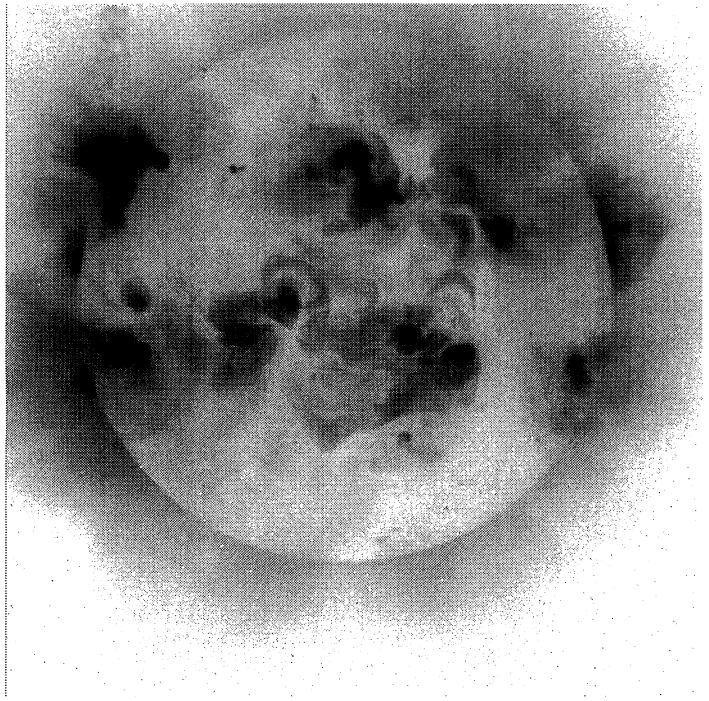
Day 28
11:18:00 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

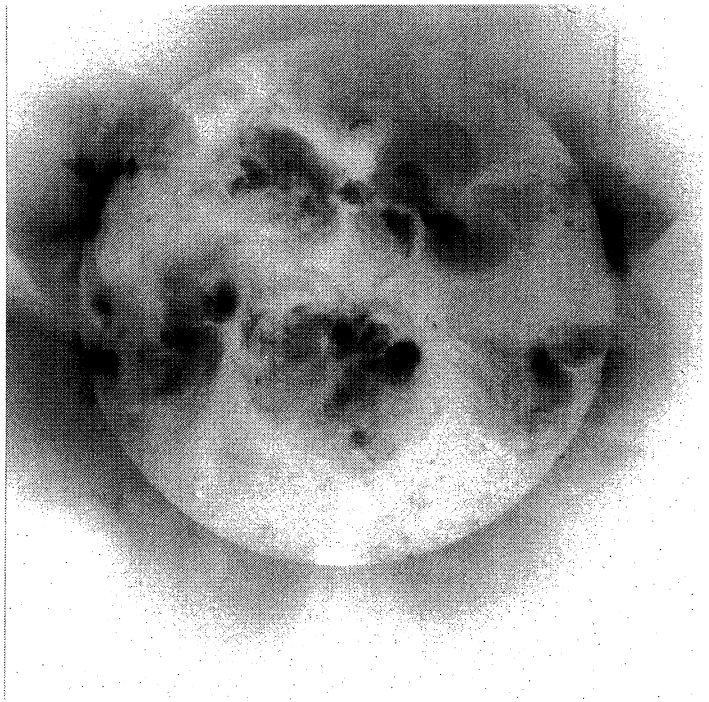
March
2000



Day 29
12:28:40 UT

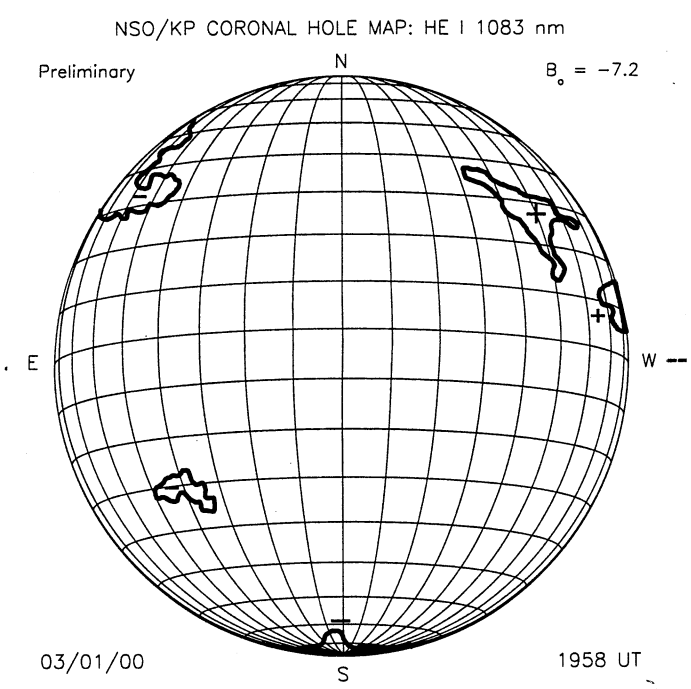


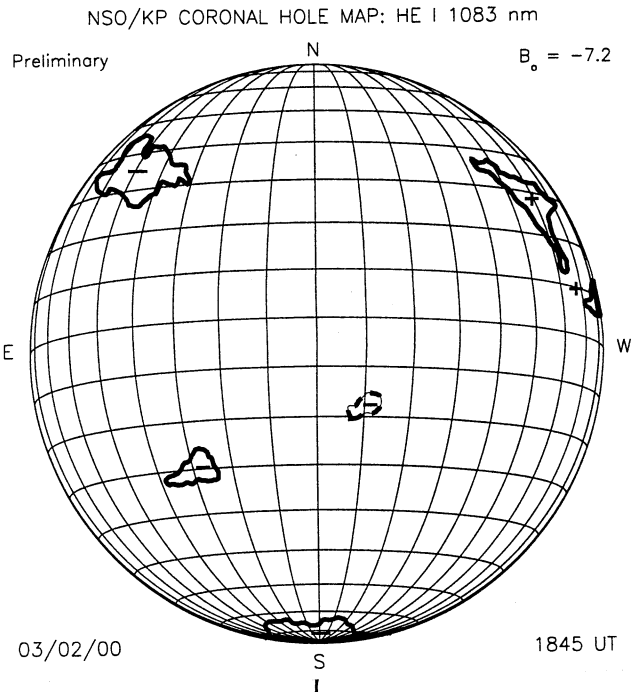
Day 31
11:37:01 UT

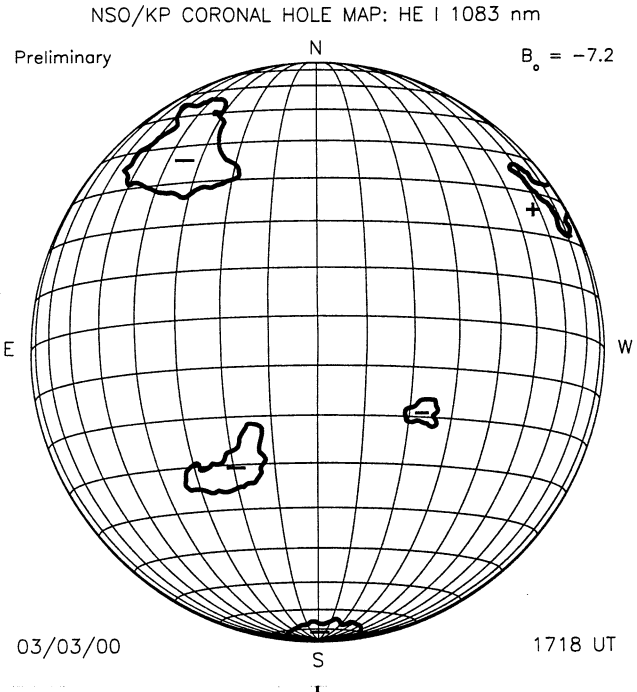


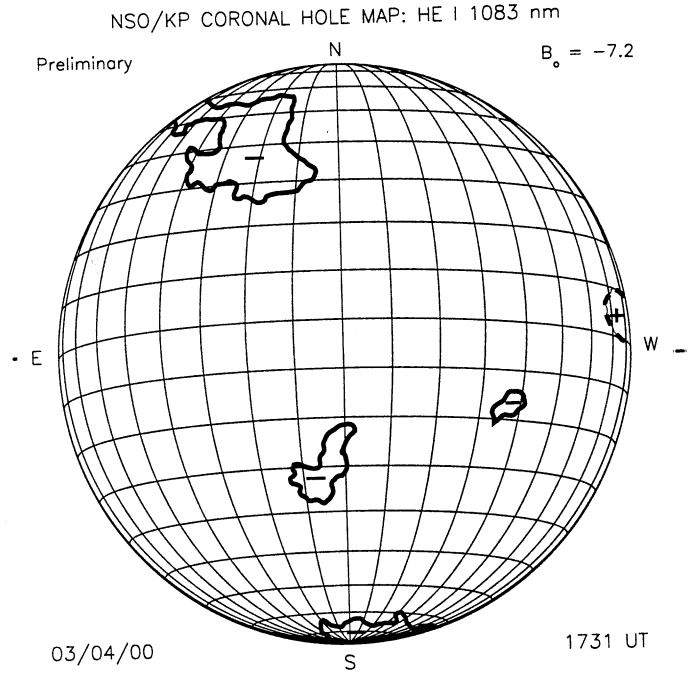
Day 30
11:40:59 UT

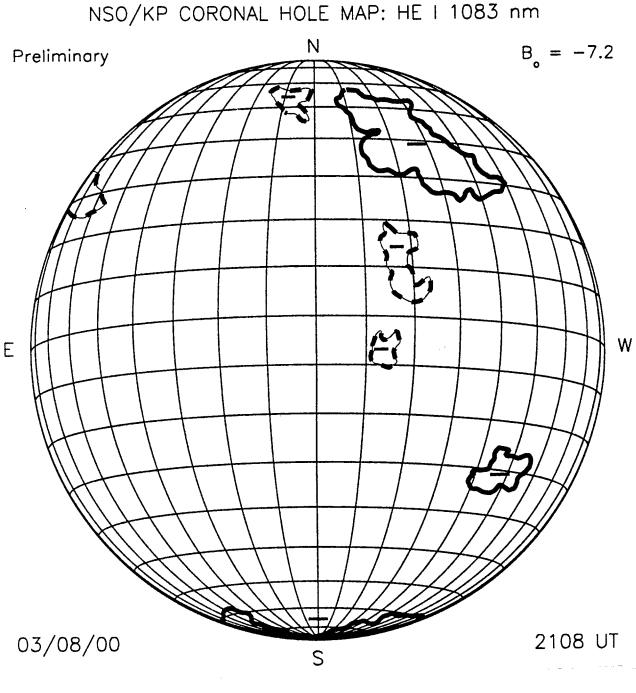
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
March 2000

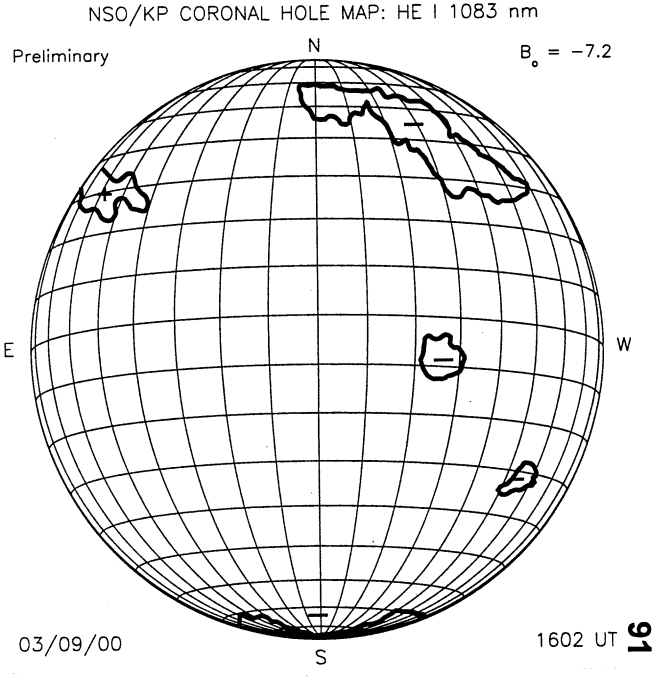




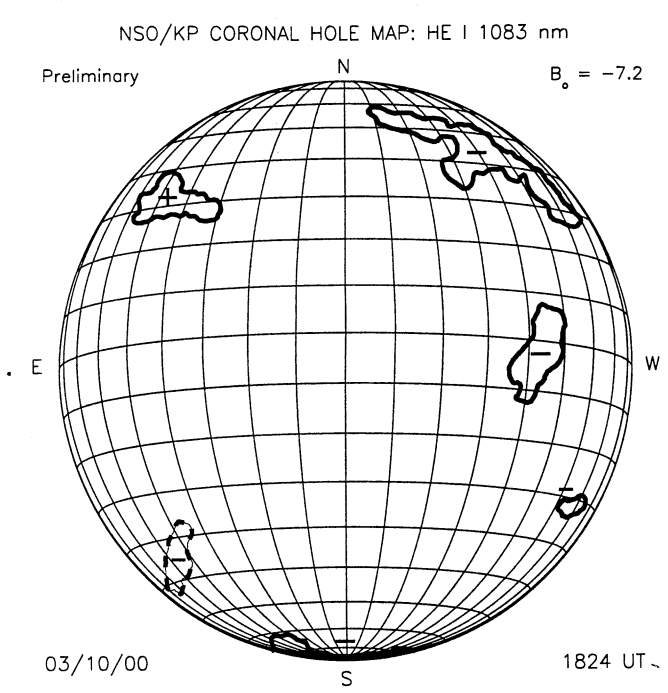


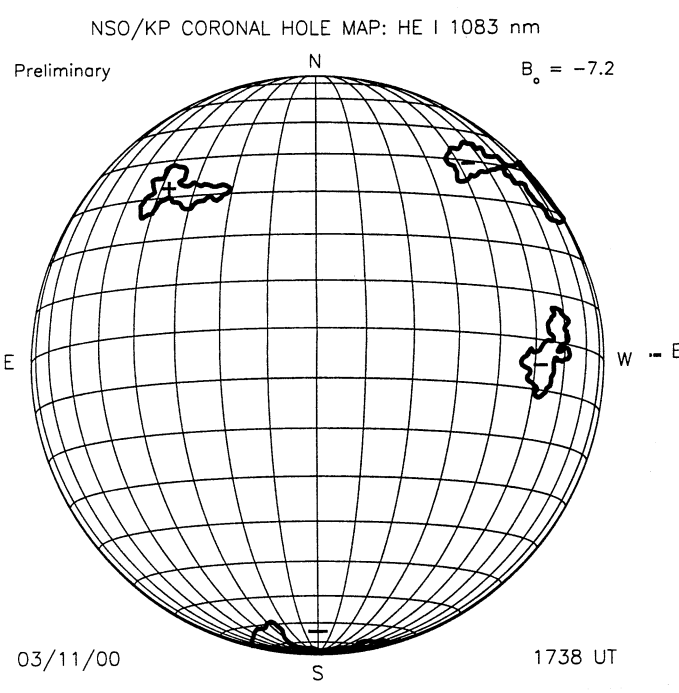


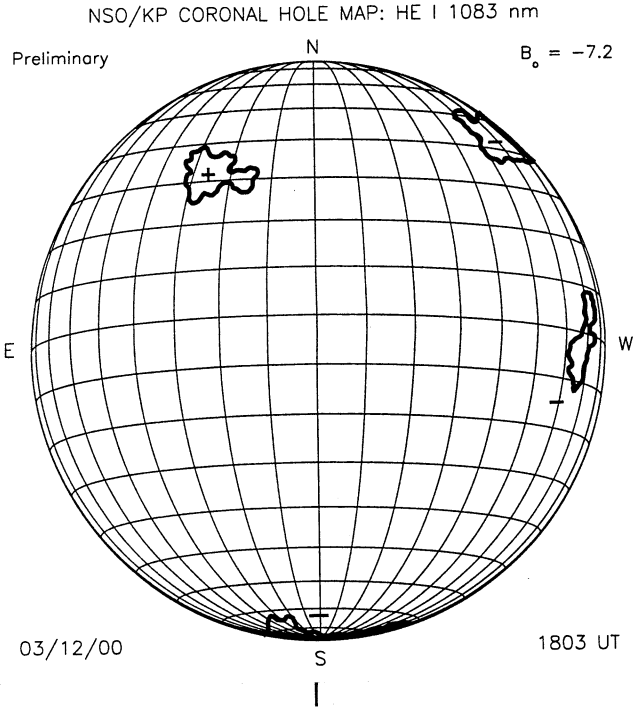


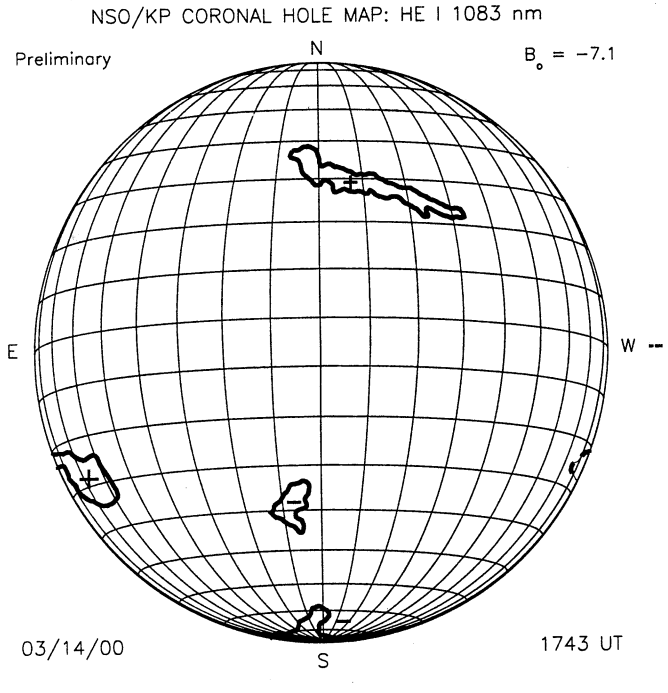


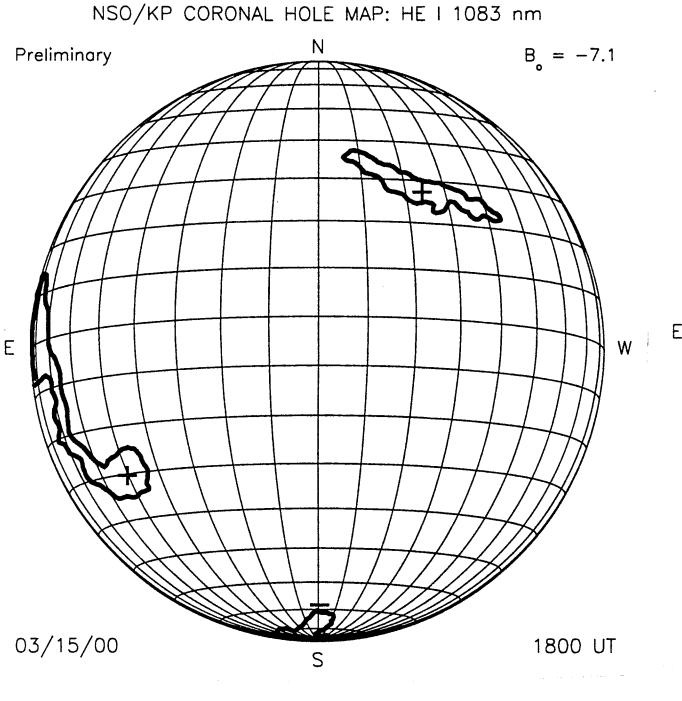
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
March 2000

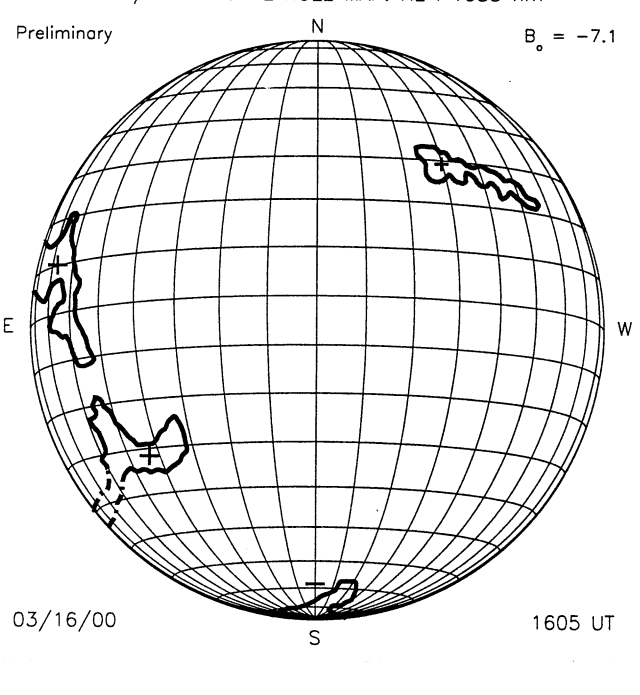




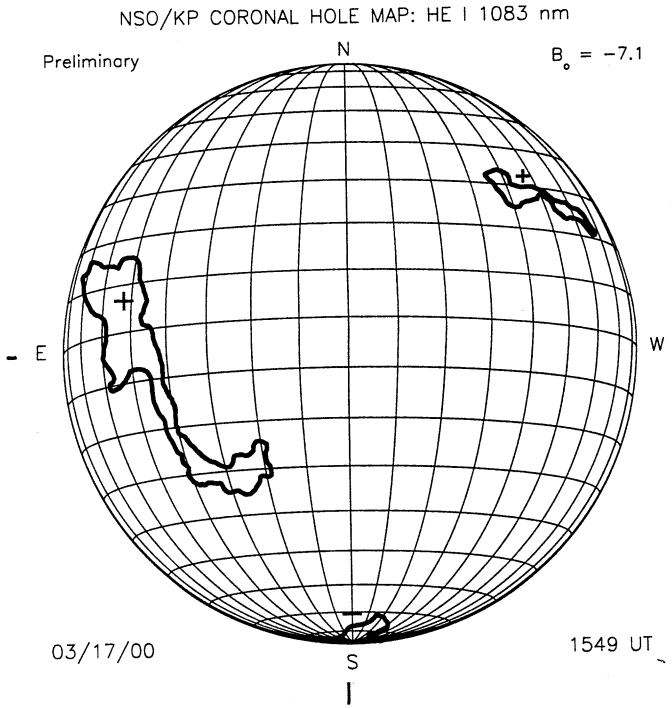


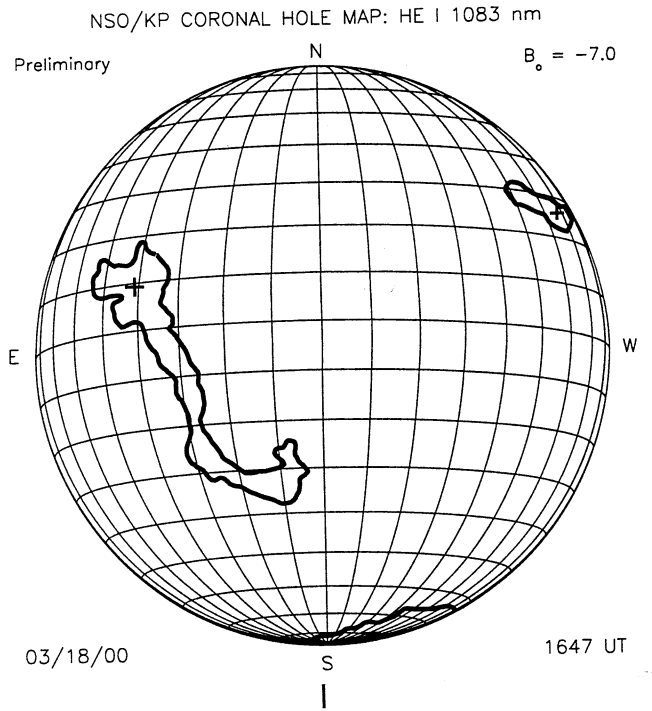


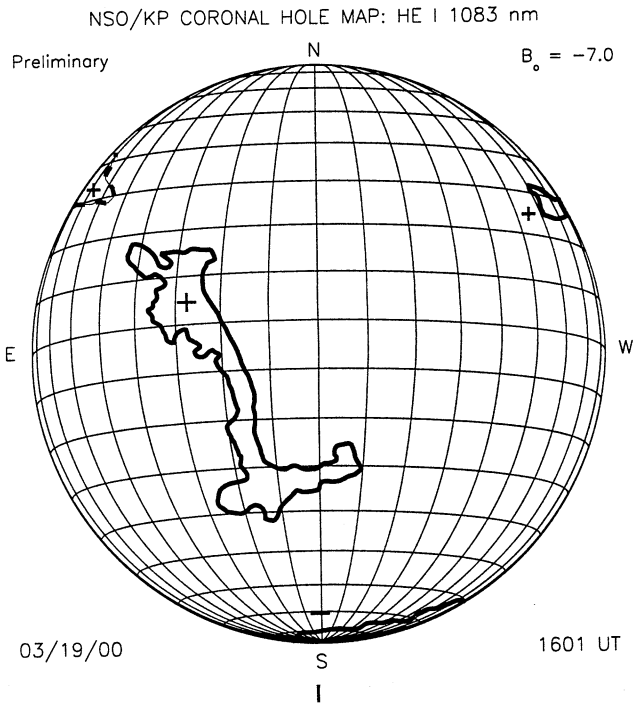


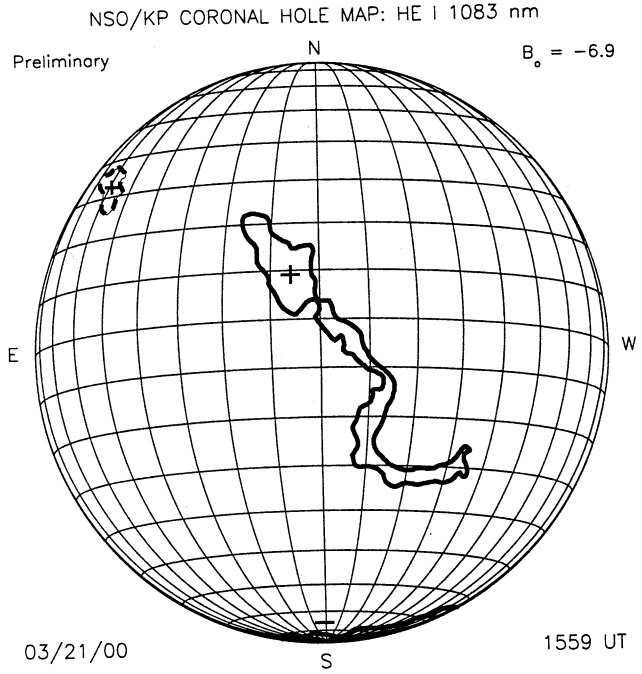


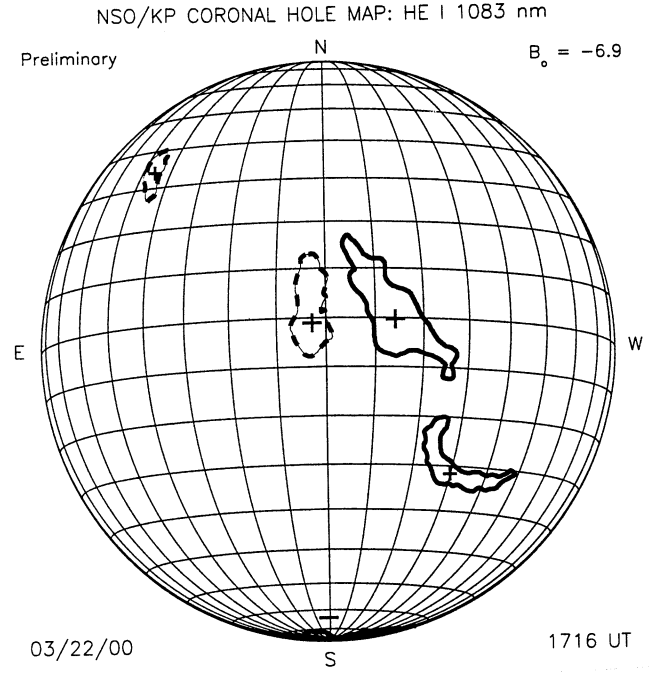
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
March 2000

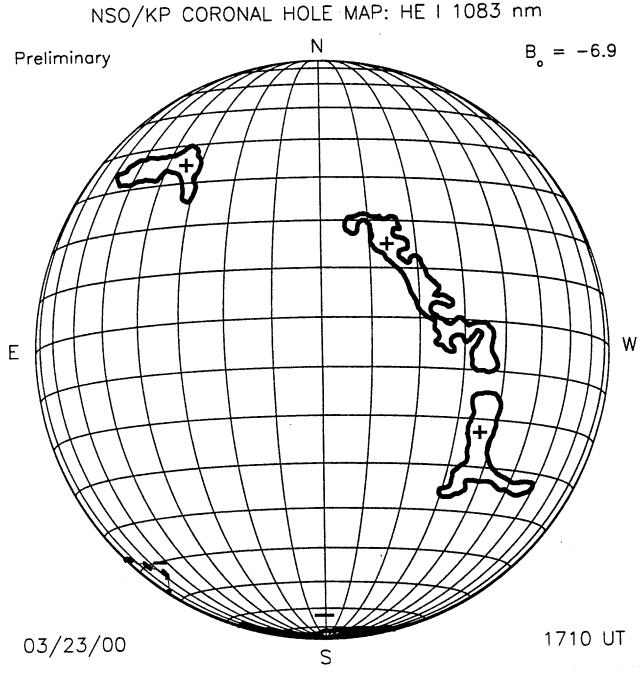




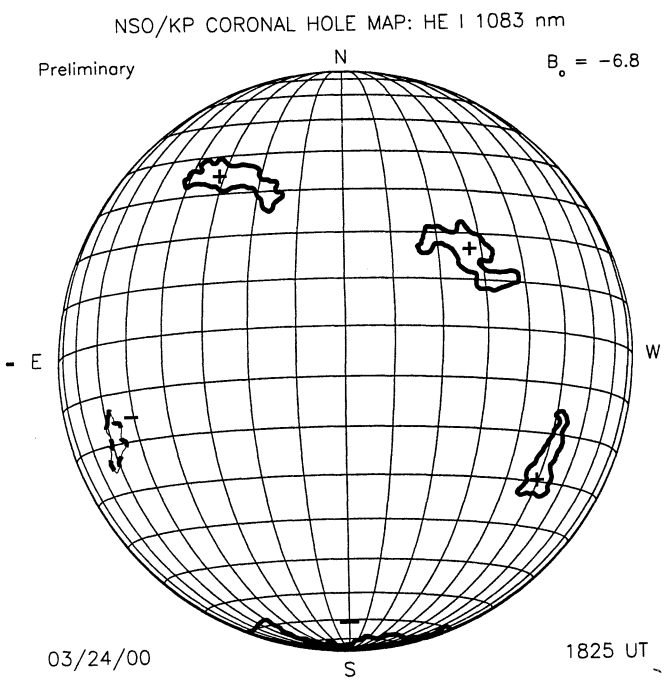


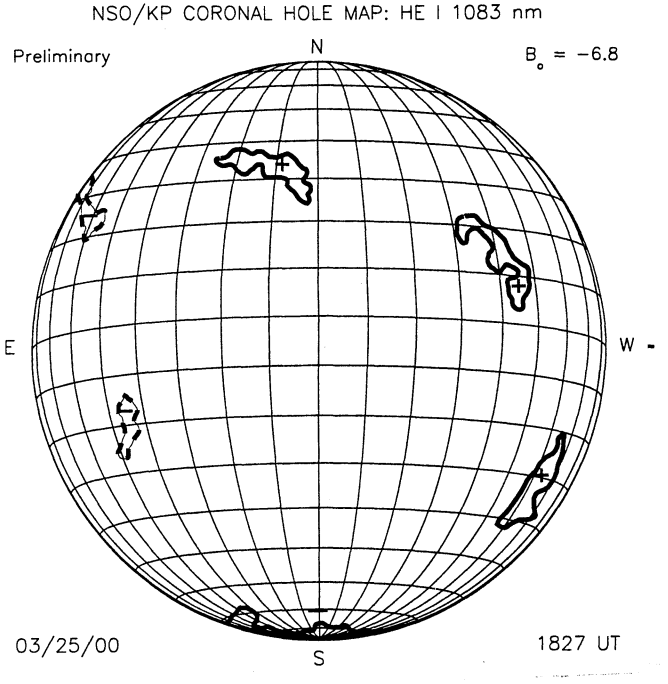


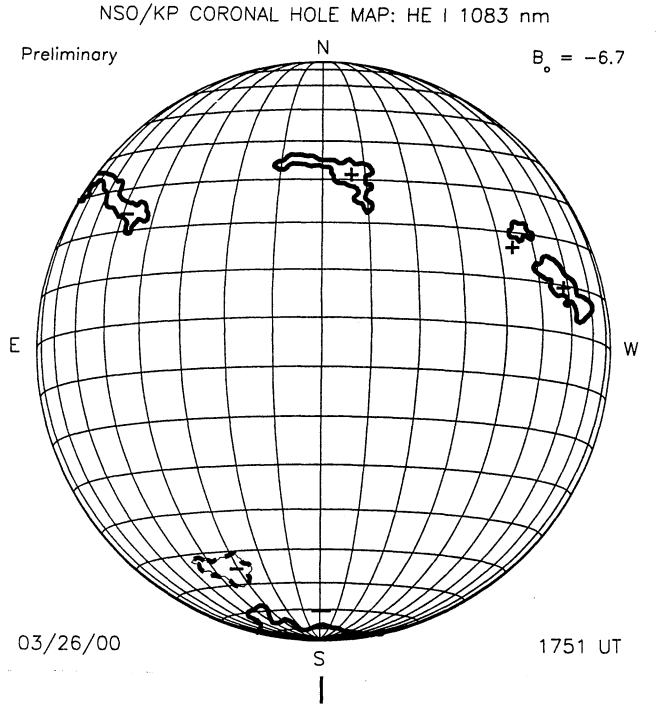


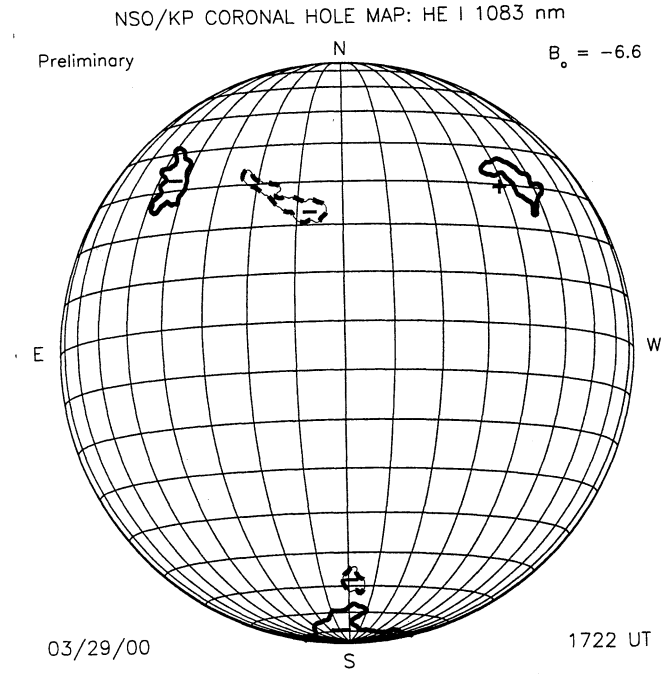


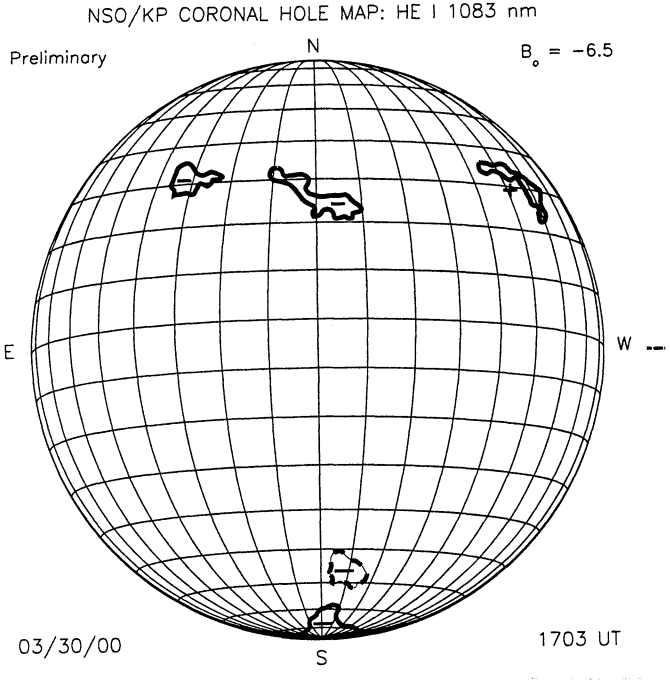
KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
March 2000

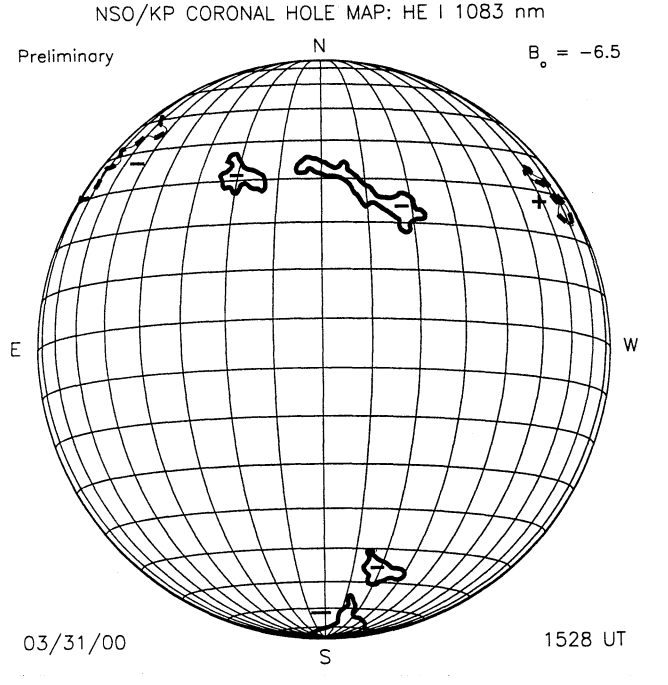




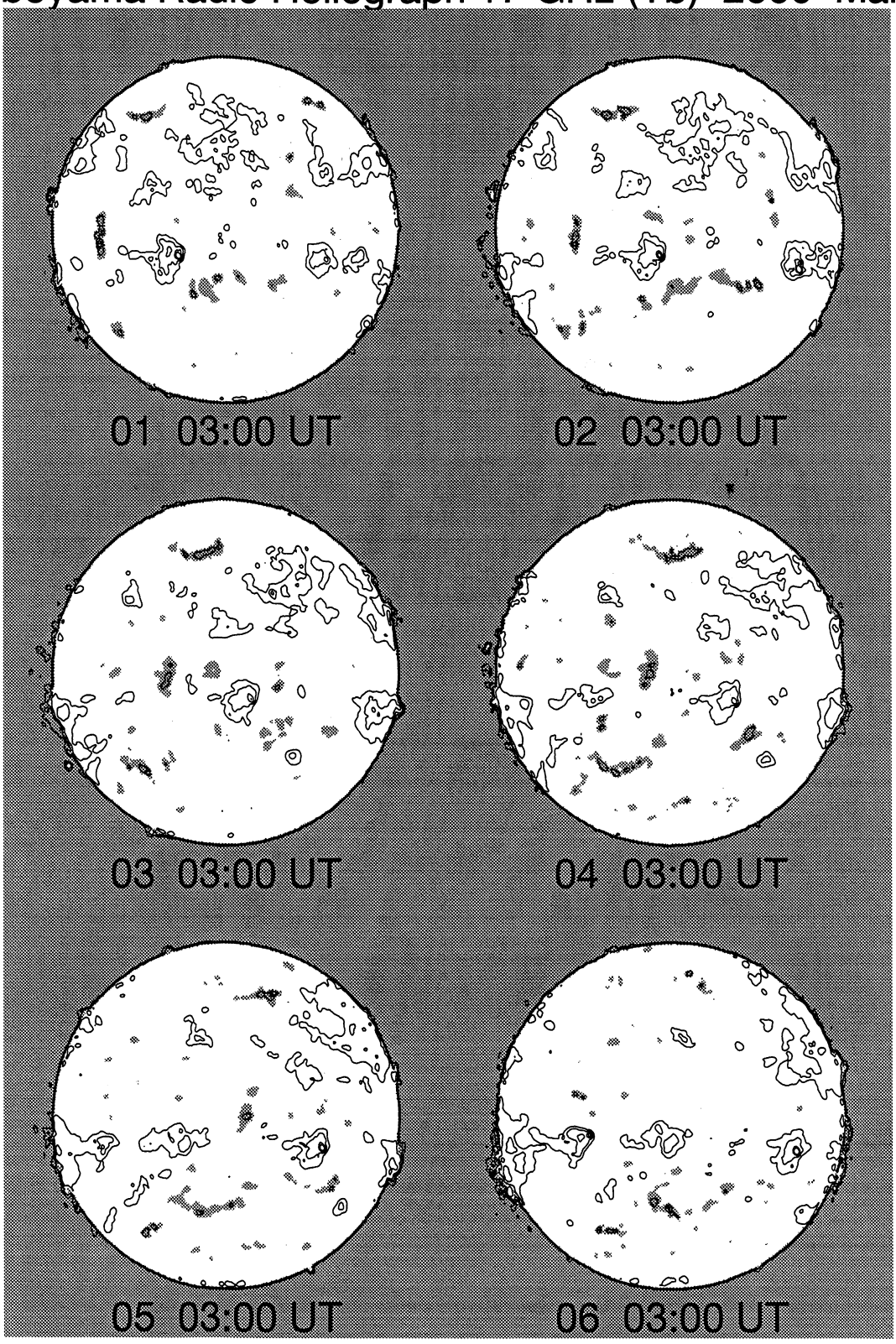






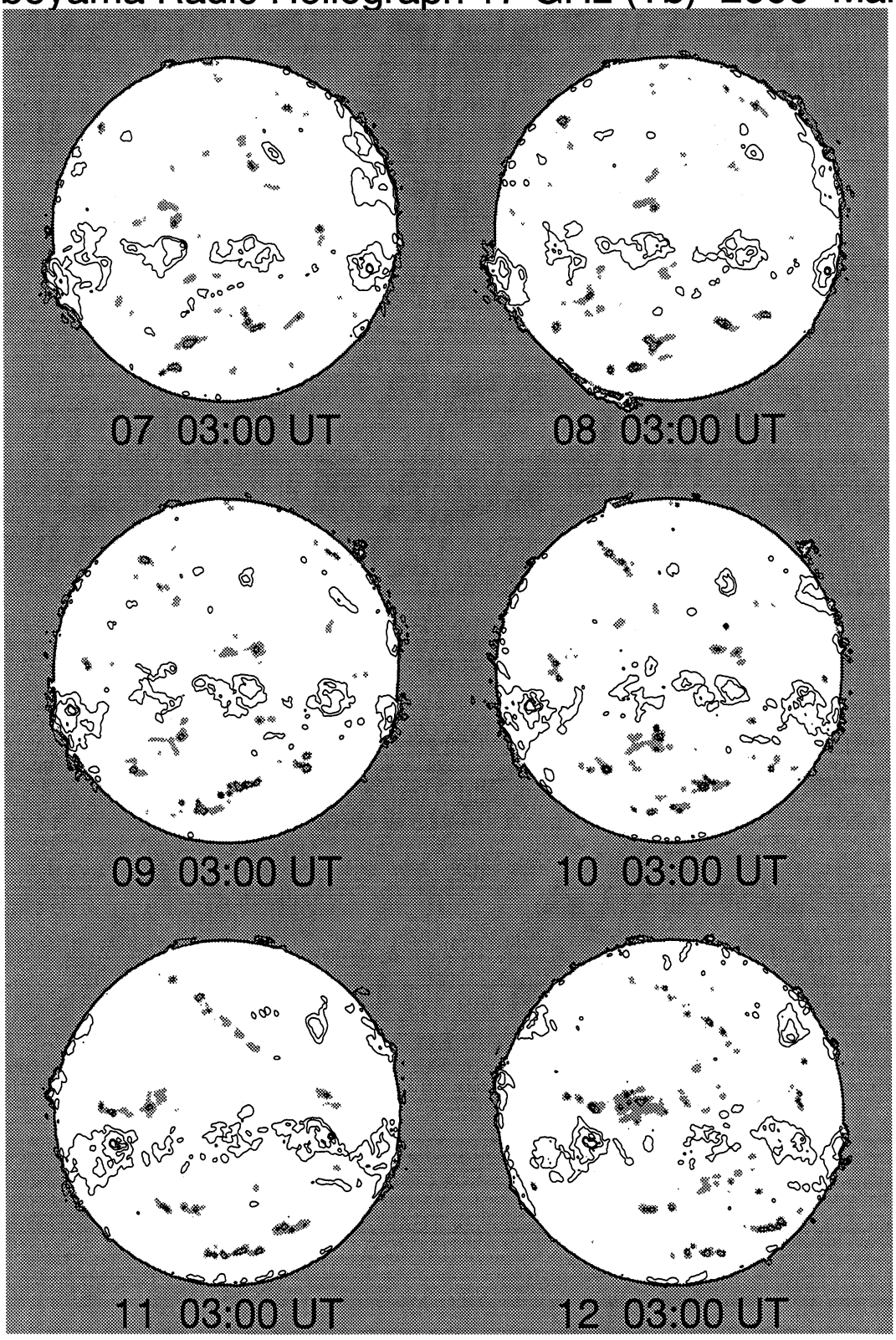


Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



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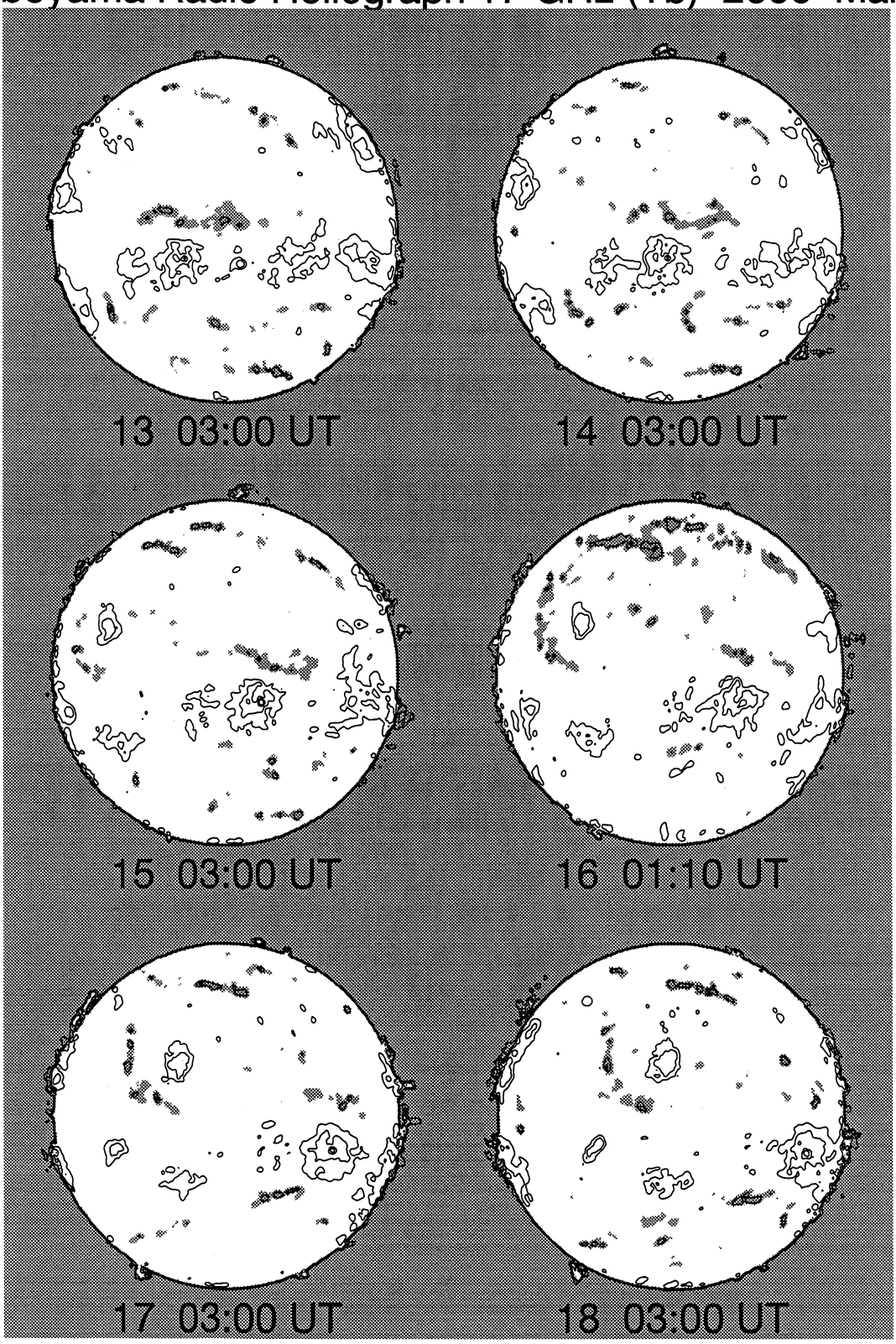
Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



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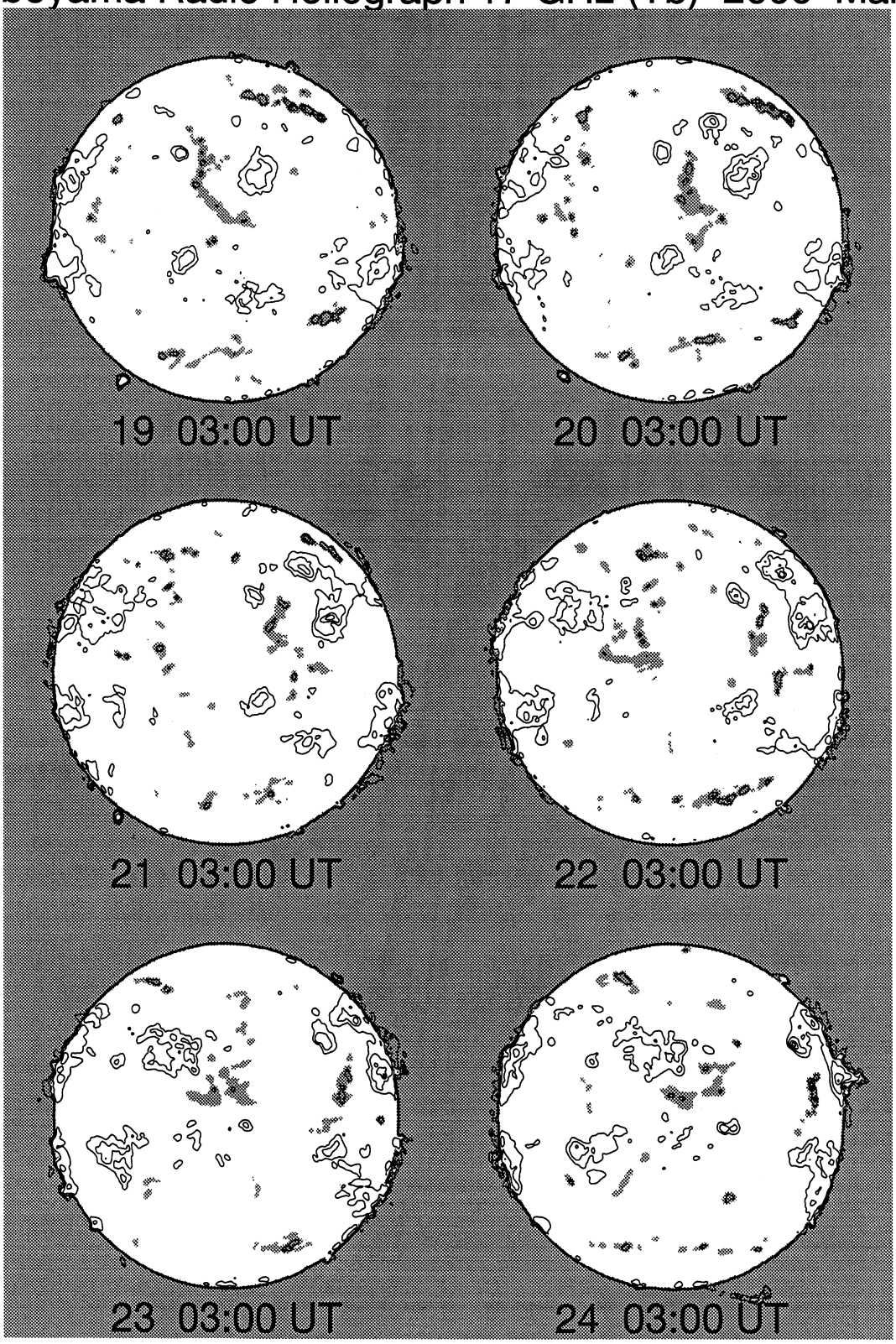
Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



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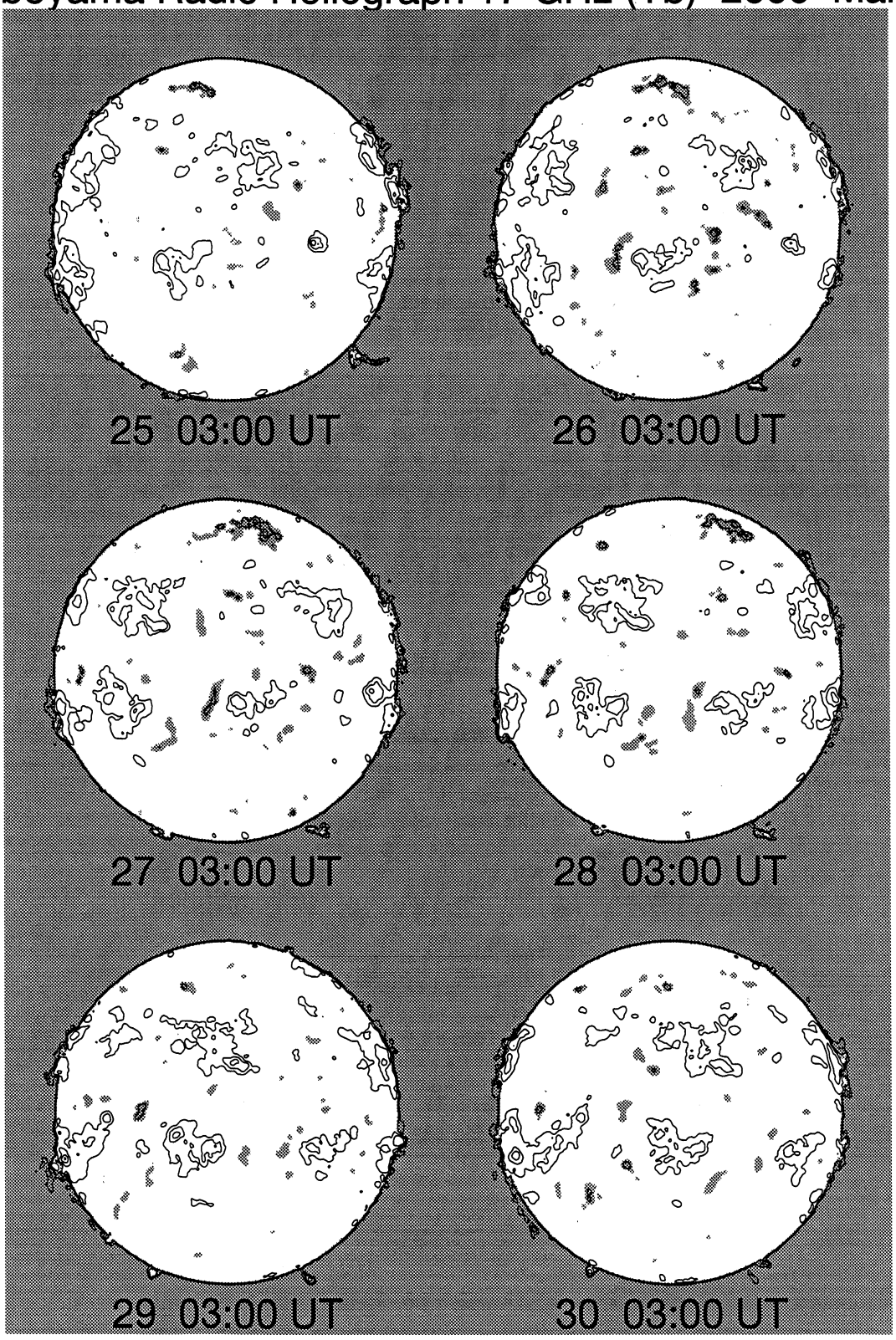
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



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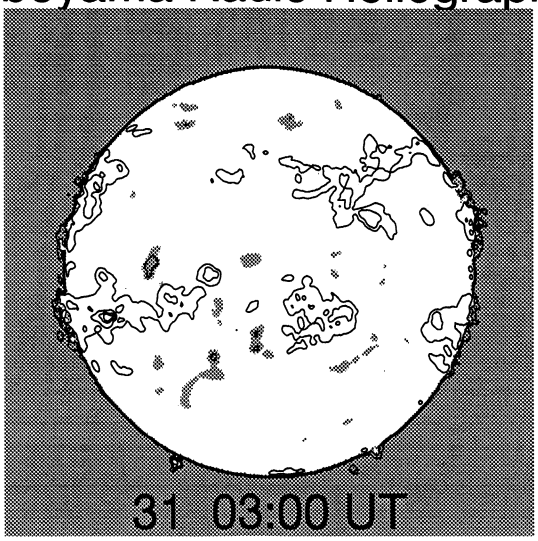
Nobeyama Radio Heliograph 17 GHz (Tb) 2000 March



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)
MARCH 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8889		LEAR	02	24	0032	N18	E77	02	29.9		A	HSX	30	1	2	5
8889		TACH	02	24	0531	N20	E77	03	1.1			HSX	50	1	1	3
8889		SVTO	02	24	0805	N20	E75	03	1.1		B	DAO	180	2	10	3
8889		KAND	02	24	0905	N20	E80	03	1.5			DSO		2	10	2
8889		RAMY	02	24	1245	N21	E76	03	1.3		B	ESO	180	2	11	4
8889		LEAR	02	25	0340	N21	E68	03	1.4		B	ESO	390	3	15	3
8889		TACH	02	25	0545	N20	E67	03	1.4			DAI	255	8	14	3
8889		SVTO	02	25	0657	N19	E68	03	1.5		B	FAO	170	3	19	3
8889		KAND	02	25	1232	N20	E64	03	1.4			FHO		3	16	2
8889		RAMY	02	25	1342	N22	E63	03	1.4		B	EHO	320	6	15	3
8889		HOLL	02	25	1545	N21	E63	03	1.5		B	EHO	480	5	15	4
8889		LEAR	02	26	0129	N20	E57	03	1.4		B	EHO	340	7	11	3
8889		TACH	02	26	0517	N19	E54	03	1.3			DAI	350	3	12	2
8889		SVTO	02	26	0922	N18	E53	03	1.4		B	EKO	400	6	15	3
8889		RAMY	02	26	1312	N23	E50	03	1.4		B	FSI	360	7	16	3
8889	29604	MWIL	02	26	1530	N20	E50	03	1.5	5	(B)					
8889		HOLL	02	26	1554	N22	E49	03	1.4		B	F O	380	9	16	4
8889		LEAR	02	27	0337	N18	E45	03	1.6		B	ESO	370	4	12	3
8889		SVTO	02	27	1152	N21	E39	03	1.5		B	DAO	240	4	16	3
8889		KAND	02	27	1155	N20	E39	03	1.5			FSO		4	16	2
8889		RAMY	02	27	1439	N22	E37	03	1.4		B	FSO	400	9	17	3
8889		HOLL	02	27	1621	N21	E36	03	1.4		B	FKO	390	5	17	4
8889		LEAR	02	28	0052	N21	E32	03	1.5		B	ESO	370	5	12	3
8889		SVTO	02	28	0625	N21	E28	03	1.4		B	FSO	420	4	16	3
8889		KAND	02	28	1025	N20	E26	03	1.4			FSO		3	16	2
8889		RAMY	02	28	1350	N20	E24	03	1.4		B	FSO	370	7	16	3
8889		HOLL	02	28	1537	N21	E23	03	1.4		B	FSC	290	7	16	2
8889	29604	MWIL	02	28	1545	N20	E22	03	1.3	5	(BP)					
8889		LEAR	02	29	0332	N22	E16	03	1.4		B	FHO	3800	8	16	3
8889		KAND	02	29	0730	N21	E14	03	1.4			FSO		5	16	3
8889		SVTO	02	29	1030	N19	E13	03	1.4		B	FKO	480	9	17	3
8889		RAMY	02	29	1435	N21	E11	03	1.4		B	FSO	320	9	16	3
8889		HOLL	02	29	1559	N21	E10	03	1.4		B	FSC	350	13	17	3
8889	29604	MWIL	02	29	1645	N20	E08	03	1.3	5	(B)					
8889		LEAR	03	01	0330	N20	E04	03	1.4		B	FAO	320	8	17	2
8889		TACH	03	01	0624	N20	E02	03	1.4			DAI	425	4	13	3
8889		SVTO	03	01	0624	N21	E03	03	1.5		B	FAO	280	6	17	2
8889		KAND	03	01	0725	N21	E01	03	1.4			FAO		12	16	3
8889		RAMY	03	01	1228	N20	W02	03	1.4		BG	FAO	370	11	17	4
8889	29604	MWIL	03	01	1600	N20	W03	03	1.4	5	(B)					
8889		HOLL	03	01	1800	N20	W05	03	1.4		B	FSO	300	14	16	3
8889		LEAR	03	02	0100	N19	W08	03	1.4		B	FSO	210	9	17	3
8889		TACH	03	02	0608	N20	W11	03	1.4			DAI	392	7	13	3
8889		KAND	03	02	1130	N19	W14	03	1.4			FAO		6	17	4
8889		RAMY	03	02	1249	N21	W16	03	1.3		B	FSO	250	12	16	2
8889	29610	MWIL	03	02	1500	N17	W08	03	2.0	3	(AF)					
8889	29604	MWIL	03	02	1500	N20	W16	03	1.4	5	(BG)					
8889		HOLL	03	02	1552	N21	W16	03	1.4		B	FSO	270	14	18	4
8889		LEAR	03	03	0300	N20	W21	03	1.5		B	FSO	240	11	17	3
8889		TACH	03	03	0547	N21	W24	03	1.4			DAI	219	6	12	3
8889		SVTO	03	03	0620	N19	W24	03	1.4		B	FAO	200	8	17	3
8889		RAMY	03	03	1222	N22	W26	03	1.5		B	FSO	190	13	18	3
8889		HOLL	03	03	1509	N20	W30	03	1.3		B	FSC	110	6	16	3
8889		LEAR	03	04	0145	N20	W34	03	1.5		B	ESO	180	9	15	4
8889		SVTO	03	04	0714	N19	W37	03	1.5		B	ESO	120	4	15	3
8889		KAND	03	04	0725	N19	W39	03	1.3			ESO		5	14	2
8889		RAMY	03	04	1247	N21	W42	03	1.3		B	FSO	140	5	14	3
8889		HOLL	03	04	1538	N20	W43	03	1.4		B	ESO	160	4	13	3
8889		LEAR	03	05	0130	N20	W48	03	1.4		B	ESO	250	3	15	4
8889		TACH	03	05	0543	N20	W50	03	1.4			DAI	105	3	11	4
8889		KAND	03	05	0950	N19	W52	03	1.4			EAO		3	13	3
8889		RAMY	03	05	1227	N20	W54	03	1.4		B	EAO	120	3	12	4
8889		HOLL	03	05	1812	N20	W60	03	1.2		B	EAO	140	3	13	2
8889		SVTO	03	06	0736	N19	W67	03	1.2		B	EAO	100	3	15	3
8889		RAMY	03	06	1228	N19	W67	03	1.4		B	ESO	70	3	13	2
8889		HOLL	03	06	1500	N19	W68	03	1.4		B	ESO	180	5	14	2
8889		TACH	03	07	0527	N21	W72	03	1.7			HSX	29	3	1	3
8889		SVTO	03	07	0710	N19	W73	03	1.7		B	BXO	10	2	6	3
8891		LEAR	02	25	0340	S13	E80	03	2.2		B	ESO	360	3	10	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

MARCH 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8891		TACH	02	25	0545	S15	E84	03	2.6			DAI	230	6	4	3
8891		SVTO	02	25	0657	S14	E80	03	2.3		B	DAO	210	3	10	3
8891		KAND	02	25	1232	S14	E80	03	2.6			DKO		4	10	2
8891		RAMY	02	25	1342	S13	E77	03	2.4		B	EKI	720	7	11	3
8891		HOLL	02	25	1545	S14	E76	03	2.4		B	DHO	700	17	8	4
8891		LEAR	02	26	0129	S16	E69	03	2.3		B	DKI	350	11	10	3
8891		TACH	02	26	0517	S14	E71	03	2.6			DAI	340	4	7	2
8891		SVTO	02	26	0922	S16	E68	03	2.5		B	EKI	580	10	12	3
8891		RAMY	02	26	1312	S14	E65	03	2.5		B	EKC	890	19	13	3
8891	29605	MWIL	02	26	1530	S15	E65	03	2.6	5	(B)					
8891		HOLL	02	26	1554	S14	E65	03	2.6		B	EKC	980	18	13	4
8891		LEAR	02	27	0337	S17	E57	03	2.5		B	DKI	720	10	7	3
8891		SVTO	02	27	1152	S17	E55	03	2.7		B	EKO	730	10	13	3
8891		KAND	02	27	1155	S14	E54	03	2.6			EKC		16	14	2
8891		RAMY	02	27	1439	S15	E53	03	2.6		B	EKI	960	21	13	3
8891		HOLL	02	27	1621	S14	E52	03	2.6		BG	EKC	1030	19	13	4
8891		LEAR	02	28	0052	S16	E47	03	2.6		B	DKI	840	16	8	3
8891		SVTO	02	28	0625	S15	E45	03	2.7		BG	EKI	1080	19	15	3
8891		KAND	02	28	1025	S14	E41	03	2.5			EKC		20	11	2
8891		RAMY	02	28	1350	S15	E40	03	2.6		BG	EKI	1020	22	11	3
8891		HOLL	02	28	1537	S14	E38	03	2.5		BG	EKC	1020	18	12	2
8891	29605	MWIL	02	28	1545	S15	E38	03	2.5	6	(BP)					
8891		LEAR	02	29	0332	S15	E32	03	2.6		B	DKI	1000	14	10	3
8891		KAND	02	29	0730	S14	E30	03	2.6			EKC		13	11	3
8891		SVTO	02	29	1030	S16	E29	03	2.6		BG	EKI	1000	23	11	3
8891		RAMY	02	29	1435	S16	E26	03	2.6		B	EKI	1150	28	12	3
8891		HOLL	02	29	1559	S16	E25	03	2.6		BG	EKC	980	40	11	3
8891	29605	MWIL	02	29	1645	S15	E24	03	2.5	5	(BD)					
8891		LEAR	03	01	0330	S16	E18	03	2.5		BGD	EKC	680	40	12	2
8891		TACH	03	01	0624	S15	E17	03	2.5			EKC	2224	13	6	3
8891		SVTO	03	01	0624	S15	E19	03	2.7		BG	EKI	1120	20	12	2
8891		KAND	03	01	0725	S15	E16	03	2.5			EKC		36	12	3
8891		RAMY	03	01	1228	S16	E14	03	2.6		BG	EKC	820	39	12	4
8891	29605	MWIL	03	01	1600	S15	E12	03	2.6	5	(B)					
8891		HOLL	03	01	1800	S15	E12	03	2.6		BG	EKC	900	61	12	3
8891		LEAR	03	02	0100	S15	E08	03	2.6		BGD	EKC	780	36	11	3
8891		TACH	03	02	0608	S15	E05	03	2.6			DKC	2036	19	6	3
8891		KAND	03	02	1130	S15	E01	03	2.5			DKC		27	10	4
8891		RAMY	03	02	1249	S15	E02	03	2.7		BG	EKC	1030	31	11	2
8891	29605	MWIL	03	02	1500	S15	W01	03	2.5	6	(BG)					
8891		HOLL	03	02	1552	S15	W01	03	2.6		BG	EKC	960	46	11	4
8891		LEAR	03	03	0300	S15	W05	03	2.7		BG	EKC	1100	43	11	3
8891		TACH	03	03	0547	S14	W07	03	2.7			DKC	1700	18	5	3
8891		SVTO	03	03	0620	S16	W08	03	2.6		BG	EKI	480	19	11	3
8891		RAMY	03	03	1222	S15	W12	03	2.6		B	DKC	800	29	8	3
8891		HOLL	03	03	1509	S15	W14	03	2.6		BG	EKC	920	40	11	3
8891		LEAR	03	04	0145	S15	W18	03	2.7		B	DKC	800	32	10	4
8891		SVTO	03	04	0714	S16	W18	03	2.9		BG	FKO	630	15	17	3
8891		KAND	03	04	0725	S15	W21	03	2.7			FKC		19	16	2
8891		RAMY	03	04	1247	S15	W22	03	2.9		B	EKI	820	32	15	3
8891		HOLL	03	04	1538	S15	W25	03	2.7		BG	EKC	880	32	15	3
8891		LEAR	03	05	0130	S15	W29	03	2.9		BG	DKC	800	44	16	4
8891		TACH	03	05	0543	S15	W35	03	2.6			DAI	513	20	6	4
8891		KAND	03	05	0950	S15	W37	03	2.6			DKC		20	7	3
8891		RAMY	03	05	1227	S16	W38	03	2.6		B	DKC	660	24	10	4
8891		HOLL	03	05	1812	S16	W43	03	2.5		BG	DKC	710	21	10	2
8891		SVTO	03	06	0736	S16	W50	03	2.5		BG	EKO	560	15	11	3
8891		RAMY	03	06	1228	S16	W52	03	2.6		B	DKI	590	30	10	2
8891		HOLL	03	06	1500	S16	W51	03	2.7		BG	EKI	620	17	13	2
8891		TACH	03	07	0527	S12	W62	03	2.5			DAI	579	17	3	3
8891		SVTO	03	07	0710	S17	W58	03	2.9		B	FKO	680	14	16	3
8891		KAND	03	07	0722	S15	W59	03	2.8			EAO		8	15	1
8891		TACH	03	08	0657	S15	W77	03	2.5			HHX	210	4	2	3
8891		SVTO	03	08	0728	S16	W77	03	2.5		B	DKO	150	3	6	2
8891		KAND	03	08	0750	S16	W80	03	2.2			DAO		2	7	4
8891		HOLL	03	08	1618	S15	W78	03	2.8		B	CSO	300	7	14	4
8891		RAMY	03	08	1825	S17	W79	03	2.8		B	CSO	330	4	7	2
8892		HOLL	02	25	1545	N04	E86	03	3.1		A	AXX	20	1	2	4

SUNSPOT GROUPS
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8892		LEAR	02	26	0129	N05	E74	03	2.6		A	HSX	30	1	1	3
8892		SVTO	02	26	0922	N04	E70	03	2.6		B	CRO	60	3	9	3
8892		RAMY	02	26	1312	N06	E69	03	2.7		A	HSX	30	2	1	3
8892	29606	MWIL	02	26	1530	N05	E70	03	2.9	4	(AP)					
8892		HOLL	02	26	1554	N06	E70	03	2.9		A	HAX	40	1	1	4
8892		LEAR	02	27	0337	N05	E62	03	2.8		B	CSO	40	3	1	3
8892		SVTO	02	27	1152	N05	E60	03	3.0		A	HRX	10	1	1	3
8892		KAND	02	27	1155	N05	E61	03	3.0			HAX		2	2	2
8892		RAMY	02	27	1439	N06	E58	03	2.9		A	HRX	10	4	2	3
8892		HOLL	02	27	1621	N06	E57	03	2.9		A	HAX	30	2	1	4
8892		LEAR	02	28	0052	N05	E51	03	2.8		B	CSO	30	3	1	3
8892		SVTO	02	28	0625	N05	E49	03	2.9		A	HRX	20	3	1	3
8892		KAND	02	28	1025	N05	E48	03	3.0			HSX		2	2	2
8892		RAMY	02	28	1350	N06	E43	03	2.8		B	CSO	50	6	4	3
8892		HOLL	02	28	1537	N07	E42	03	2.8		B	CSO	20	4	4	2
8892	29606	MWIL	02	28	1545	N05	E44	03	2.9	4	(AP)					
8892		LEAR	02	29	0332	N07	E37	03	2.9		B	CSO	20	2	1	3
8892		KAND	02	29	0730	N06	E36	03	3.0			HRX		1	1	3
8892		SVTO	02	29	1030	N04	E34	03	3.0		B	CSO	10	2	4	3
8892		RAMY	02	29	1435	N05	E32	03	3.0		B	CSO	10	2	3	3
8892		HOLL	02	29	1559	N05	E31	03	3.0		B	CSO	10	3	3	3
8892	29606	MWIL	02	29	1645	N05	E31	03	3.0	4	(AP)					
8892		LEAR	03	01	0330	N05	E25	03	3.0		B	BXO		2	2	2
8892		TACH	03	01	0624	N04	E24	03	3.1			AXX	7	2	2	3
8892		SVTO	03	01	0624	N06	E24	03	3.1		B	CAO	10	2	2	2
8892		KAND	03	01	0725	N05	E24	03	3.1			BXO		2	3	3
8892		RAMY	03	01	1228	N05	E20	03	3.0		B	BXO	10	2	3	4
8892	29606	MWIL	03	01	1600	N05	E18	03	3.0	3	(AP)					
8892		HOLL	03	01	1800	N08	E18	03	3.1		B	BXO	10	4	3	3
8892		LEAR	03	02	0100	N07	E15	03	3.2		B	BXO	10	9	6	3
8892		TACH	03	02	0608	N05	E11	03	3.1			AXX	4	3	1	3
8892		KAND	03	02	1130	N05	E08	03	3.1			AXX		2	1	4
8892		RAMY	03	02	1249	N06	E06	03	3.0		B	BXO		2	3	2
8892	29606	MWIL	03	02	1500	N06	E06	03	3.1	4	(B)					
8892		HOLL	03	02	1552	N08	E04	03	3.0		B	BXO	20	8	6	4
8892		LEAR	03	03	0300	N06	W02	03	3.0		B	CSO	20	8	6	3
8892		SVTO	03	03	0620	N06	W03	03	3.0		B	CRO	10	2	3	3
8892		RAMY	03	03	1222	N07	W05	03	3.1		A	AXX		2	1	3
8892		HOLL	03	03	1509	N07	W08	03	3.0		A	AXX	10	2	1	3
8892A		TACH	03	07	0527	S13	W50	03	3.4			AXX	42	4	1	3
8892A		TACH	03	08	0657	S13	W64	03	3.5			AXX	3	1	1	3
8892C		LEAR	03	02	0100	N23	E30	03	4.3		A	AXX		2	2	3
8892B		LEAR	03	04	0145	S09	E04	03	4.4		A	HSX	20	1	1	4
8896A		LEAR	02	29	0330	N17	E60	03	4.7		B	DSO	70	7	10	2
8896		HOLL	02	28	1537	N19	E78	03	5.6		A	AXX	10	2	1	2
8896		LEAR	02	29	0332	N18	E69	03	5.4		A	AXX	30	1		3
8896		KAND	02	29	0730	N19	E72	03	5.8			CAO		2	10	3
8896		SVTO	02	29	1030	N19	E70	03	5.8		B	DSO	60	2	8	3
8896		RAMY	02	29	1435	N18	E68	03	5.8		B	DSO	50	2	9	3
8896		HOLL	02	29	1559	N19	E68	03	5.8		B	DSO	60	6	7	3
8896	29607	MWIL	02	29	1645	N19	E69	03	6.0	4	(B)					
8896		LEAR	03	01	0330	N17	E60	03	5.7		B	DSO	70	7	10	2
8896		TACH	03	01	0624	N17	E60	03	5.8			CRI	54	5	8	3
8896		SVTO	03	01	0624	N18	E64	03	6.1		B	DAO	130	5	10	2
8896		KAND	03	01	0725	N19	E60	03	5.9			CSO		9	9	3
8896		RAMY	03	01	1228	N19	E57	03	5.9		B	DSO	50	10	11	4
8896	29607	MWIL	03	01	1600	N19	E56	03	5.9	4	(B)					
8896		HOLL	03	01	1800	N19	E54	03	5.9		B	DAO	130	19	10	3
8896		LEAR	03	02	0100	N18	E52	03	6.0		B	EAO	50	11	11	3
8896		TACH	03	02	0608	N19	E46	03	5.8			DAI	210	4	6	3
8896		KAND	03	02	1130	N19	E44	03	5.8			CAO		10	10	4
8896		RAMY	03	02	1249	N19	E43	03	5.8		B	DRO	30	10	9	2
8896	29607	MWIL	03	02	1500	N19	E44	03	6.0	4	(B)					
8896		HOLL	03	02	1552	N19	E43	03	5.9		B	CSO	50	13	10	4

SUNSPOT GROUPS
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8896		LEAR	03	03	0300	N19	E37	03	5.9		B	DSO	70	18	10	3
8896		TACH	03	03	0547	N20	E34	03	5.8			BRO	52	5	8	3
8896		SVTO	03	03	0620	N18	E35	03	5.9		B	DAO	40	7	10	3
8896		RAMY	03	03	1222	N19	E32	03	5.9		B	CRO	30	13	10	3
8896		HOLL	03	03	1509	N19	E30	03	5.9		B	CSO	30	9	9	3
8896		LEAR	03	04	0145	N19	E25	03	6.0		B	DSO	80	9	10	4
8896		SVTO	03	04	0714	N19	E22	03	6.0		B	CAO	30	6	7	3
8896		KAND	03	04	0725	N19	E20	03	5.8			CAO		4	6	2
8896		RAMY	03	04	1247	N20	E16	03	5.7		B	CRO	20	7	6	3
8896		HOLL	03	04	1538	N19	E15	03	5.8		B	CSO	10	3	6	3
8896		LEAR	03	05	0130	N20	E11	03	5.9		B	DSO	50	7	8	4
8896		TACH	03	05	0543	N19	E05	03	5.6			AXX	11	2	1	4
8896		KAND	03	05	0950	N19	E04	03	5.7			HSX		1	1	3
8896		RAMY	03	05	1227	N18	E02	03	5.7		B	CSO	10	3	3	4
8896		HOLL	03	05	1812	N19	W02	03	5.6		A	HSX	10	1	1	2
8896		SVTO	03	06	0736	N19	W09	03	5.6		B	CSO	20	3	3	3
8896		RAMY	03	06	1228	N20	W11	03	5.7		B	BXO	10	2	2	2
8896		HOLL	03	06	1500	N20	W12	03	5.7		B	BXO	10	2	2	2
8896		TACH	03	07	0527	N20	W21	03	5.6			AXX	6	2	1	3
8896		KAND	03	07	0722	N18	W21	03	5.7			AXX		2	1	1
8900		LEAR	03	02	0100	S16	E52	03	6.0		A	AXX		1		3
8900		LEAR	03	04	0145	S15	E28	03	6.2		B	DSO	50	9	5	4
8900		SVTO	03	04	0714	S16	E27	03	6.3		B	CAO	20	3	2	3
8900		KAND	03	04	0725	S16	E24	03	6.1			CAO		9	5	2
8900		RAMY	03	04	1247	S15	E22	03	6.2		B	DSO	30	10	6	3
8900		HOLL	03	04	1538	S16	E19	03	6.1		B	DSO	30	15	7	3
8900		LEAR	03	05	0130	S15	E14	03	6.1		B	DSO	160	27	8	4
8900		TACH	03	05	0543	S15	E11	03	6.1			DAI	169	15	7	4
8900		KAND	03	05	0950	S16	E11	03	6.2			DAI		26	9	3
8900		RAMY	03	05	1227	S17	E08	03	6.1		B	DAI	300	19	9	4
8900		HOLL	03	05	1812	S16	E06	03	6.2		BG	DAC	320	19	9	2
8900		SVTO	03	06	0736	S14	W03	03	6.1		BG	EKI	360	13	12	3
8900		RAMY	03	06	1228	S15	W07	03	6.0		B	EKO	290	28	11	2
8900		HOLL	03	06	1500	S16	W07	03	6.1		BG	EAI	430	25	12	2
8900		TACH	03	07	0527	S15	W15	03	6.1			DAI	506	19	10	3
8900		SVTO	03	07	0710	S16	W17	03	6.0		BG	EAI	330	21	14	3
8900		KAND	03	07	0722	S15	W15	03	6.2			EAO		9	12	1
8900		TACH	03	08	0657	S14	W30	03	6.0			CAI	263	15	11	3
8900		SVTO	03	08	0728	S16	W29	03	6.1		BG	EAI	130	16	14	2
8900		KAND	03	08	0750	S16	W30	03	6.0			EAO		12	15	4
8900		HOLL	03	08	1618	S14	W35	03	6.0		B	ESO	270	28	14	4
8900		RAMY	03	08	1825	S15	W35	03	6.1		B	ESO	200	21	12	2
8900		TACH	03	09	0525	S13	W42	03	6.0			DAI	334	20	12	3
8900		SVTO	03	09	0717	S16	W44	03	6.0		BG	FAI	210	20	16	3
8900		RAMY	03	09	1259	S16	W45	03	6.1		B	FSO	170	24	15	3
8900		KAND	03	09	1300	S16	W46	03	6.0			EAO		26	15	3
8900		HOLL	03	09	1555	S14	W47	03	6.1		BG	EAI	320	35	14	
8900		LEAR	03	10	0619	S17	W54	03	6.1		B	DAO	290	9	9	3
8900		SVTO	03	10	1003	S16	W55	03	6.2		BG	FAI	200	10	17	3
8900		RAMY	03	10	1247	S15	W57	03	6.2		B	FAI	150	18	16	3
8900		HOLL	03	10	1558	S16	W60	03	6.1		BG	EAO	210	21	15	
8900	29611	MWIL	03	10	2200	S15	W62	03	6.2	4	(BF)					
8900		LEAR	03	11	0350	S18	W65	03	6.2		BG	FAI	220	10	17	2
8900		SVTO	03	11	0842	S18	W64	03	6.5		B	CRO	40	2	3	2
8900		RAMY	03	11	1235	S16	W71	03	6.1		B	CSO	60	5	12	3
8900		HOLL	03	11	1523	S18	W68	03	6.5		A	AXX	10	2	2	2
8900	29611	MWIL	03	11	1545	S15	W72	03	6.2	4	(B)					
8899		RAMY	03	03	1222	S11	E38	03	6.4		B	BXO		4	3	3
8899		HOLL	03	03	1509	S11	E37	03	6.4		B	BXO	10	3	3	3
8899		LEAR	03	04	0145	S11	E31	03	6.4		B	DSO	50	10	4	4
8899		SVTO	03	04	0714	S11	E28	03	6.4		B	BXO	10	4	4	3
8899		KAND	03	04	0725	S11	E26	03	6.3			BXO		6	5	2
8899		RAMY	03	04	1247	S11	E24	03	6.3		B	BXO	10	6	4	3
8899		LEAR	03	05	0130	S09	E18	03	6.4		B	BXO	10	4	4	4
8899		KAND	03	05	0950	S09	E14	03	6.5			CRI		7	4	3
8899		RAMY	03	05	1227	S11	E12	03	6.4		B	DAO	30	12	4	4
8899		HOLL	03	05	1812	S12	E08	03	6.4		BG	DAO	40	13	4	2

S U N S P O T G R O U P S
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo	Day	(UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8899		SVTO	03	06	0736	S12	W02	03	6.2		B	CRO	20	3	4	3
8899		RAMY	03	06	1228	S11	E00	03	6.5		B	BXO	10	11	3	2
8899		HOLL	03	06	1500	S11	W02	03	6.5		B	DAO	50	11	4	2
8899		TACH	03	07	0527	S10	W10	03	6.5			BXX	66	9	1	3
8899		SVTO	03	07	0710	S11	W11	03	6.5		B	DAO	40	7	5	3
8899		KAND	03	07	0722	S10	W10	03	6.5			DAO		6	3	1
8899		TACH	03	08	0657	S11	W23	03	6.5			BRO	10	5	3	3
8899		SVTO	03	08	0728	S12	W24	03	6.5		B	CSO	10	2	4	2
8899		KAND	03	08	0750	S12	W24	03	6.5			CRO		2	5	4
8899		HOLL	03	08	1618	S12	W30	03	6.4		B	CSO	40	8	7	4
8899		RAMY	03	08	1825	S12	W30	03	6.5		B	BSO	20	4	1	2
8899		TACH	03	09	0525	S11	W37	03	6.4			AXX	30	1	1	3
8899		SVTO	03	09	0717	S12	W40	03	6.3		A	HRX	30	1	1	3
8899		RAMY	03	09	1259	S12	W42	03	6.4		A	AXX		1		3
8899		KAND	03	09	1300	S12	W42	03	6.4			HSX		2	1	3
8899		SVTO	03	10	1003	S13	W54	03	6.3		A	AXX		1		3
8899		RAMY	03	10	1247	S13	W55	03	6.4		A	AXX		1		3
8904		TACH	03	07	0527	N26	E16	03	8.5			AXX	26	2	1	3
8904		TACH	03	08	0657	N26	E03	03	8.5			AXX	4	3	2	3
8904		SVTO	03	08	0728	N27	E03	03	8.5		B	DAO	20	3	3	2
8904		KAND	03	08	0750	N26	E01	03	8.4			BXO		5	4	4
8904		HOLL	03	08	1618	N26	W03	03	8.4		B	CRO	30	8	5	4
8904		RAMY	03	08	1825	N25	W03	03	8.5		B	CRO	20	7	5	2
8904		TACH	03	09	0525	N25	W09	03	8.5			BRO	45	8	5	3
8904		SVTO	03	09	0717	N26	W12	03	8.4		B	DAO	40	3	6	3
8904		RAMY	03	09	1259	N24	W13	03	8.5		B	CRO	20	14	6	3
8904		KAND	03	09	1300	N25	W14	03	8.4			CSO		16	7	3
8904		HOLL	03	09	1555	N24	W15	03	8.5		B	BXO	60	17	7	
8904		LEAR	03	10	0619	N23	W24	03	8.4		B	DAO	50	9	8	3
8904		SVTO	03	10	1003	N25	W25	03	8.5		B	DAO	110	12	9	3
8904		RAMY	03	10	1247	N25	W25	03	8.6		B	CAO	60	23	9	3
8904		HOLL	03	10	1558	N25	W29	03	8.4		B	BXO	130	34	9	
8904	29613	MWIL	03	10	2200	N24	W32	03	8.4	4	(B)					
8904		LEAR	03	11	0350	N22	W35	03	8.5		B	EAO	120	28	11	2
8904		SVTO	03	11	0842	N24	W36	03	8.6		B	EAO	140	10	11	2
8904		RAMY	03	11	1235	N24	W40	03	8.4		B	DSO	160	12	10	3
8904		HOLL	03	11	1523	N24	W41	03	8.5		B	ESO	80	25	11	2
8904	29613	MWIL	03	11	1545	N24	W42	03	8.4	4	(B)					
8904		LEAR	03	12	0245	N23	W49	03	8.3		B	ESO	130	20	11	3
8904		TACH	03	12	0558	N23	W45	03	8.8			DAI	86	10	2	4
8904		KAND	03	12	0710	N23	W50	03	8.4			DAO		8	10	1
8904		RAMY	03	12	1235	N23	W52	03	8.5		B	EAO	210	7	11	4
8904		HOLL	03	12	1507	N24	W55	03	8.4		B	EAO	150	10	11	3
8904	29613	MWIL	03	12	1545	N24	W54	03	8.5	5	(BF)					
8904		LEAR	03	13	0040	N24	W59	03	8.5		B	DAO	190	15	7	4
8904		SVTO	03	13	0647	N24	W60	03	8.6		B	DAO	130	6	10	3
8904		TACH	03	13	0822	N27	W64	03	8.4			DAI	107	7	10	3
8904		KAND	03	13	1157	N23	W63	03	8.6			ESO		7	12	3
8904		RAMY	03	13	1457	N25	W67	03	8.4		B	FSO	80	4	17	1
8904	29613	MWIL	03	13	1545	N24	W67	03	8.5	5	(BF)					
8904		LEAR	03	14	0122	N24	W70	03	8.6		B	DAO	330	5	5	4
8904		TACH	03	14	0510	N26	W70	03	8.8			DAO	80	2	2	3
8904		KAND	03	14	0745	N24	W71	03	8.8			CSO		2	4	3
8904		RAMY	03	14	1213	N25	W78	03	8.5		B	CSO	30	3	5	4
8904		HOLL	03	14	1511	N24	W78	03	8.6		B	CAO	90	3	4	3
8904	29613	MWIL	03	14	1545	N26	W76	03	8.7	4	(AF)					
8898		KAND	03	02	1130	S14	E79	03	8.4			AXX		1		4
8898	29612	MWIL	03	02	1500	S16	E77	03	8.5	2	B					
8898		HOLL	03	02	1552	S15	E75	03	8.3		A	AXX	10	1	1	4
8898		LEAR	03	03	0300	S16	E71	03	8.5		B	DSO	60	4	9	3
8898		SVTO	03	03	0620	S16	E69	03	8.5		B	CRO	30	2	2	3
8898		RAMY	03	03	1222	S15	E66	03	8.5		B	BXO	10	4	8	3
8898		HOLL	03	03	1509	S16	E64	03	8.5		B	BXO	10	3	7	3
8898		LEAR	03	04	0145	S15	E60	03	8.6		B	DSO	80	7	10	4
8898		SVTO	03	04	0714	S14	E58	03	8.7		B	CRO	20	2	5	3
8898		KAND	03	04	0725	S15	E56	03	8.5			CRO		4	5	2
8898		RAMY	03	04	1247	S15	E54	03	8.6		B	CRO	30	7	6	3

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8898		HOLL	03	04	1538	S16	E52	03	8.6		B	DSO	50	8	5	3
8898		LEAR	03	05	0130	S14	E47	03	8.6		B	DSO	90	14	7	4
8898		TACH	03	05	0543	S13	E41	03	8.3			HAO	156	8	3	4
8898		KAND	03	05	0950	S13	E41	03	8.5			DAO		16	6	3
8898		RAMY	03	05	1227	S13	E40	03	8.5		B	DAI	140	14	6	4
8898		HOLL	03	05	1812	S13	E36	03	8.5		B	DAO	140	15	7	2
8898		SVTO	03	06	0736	S13	E28	03	8.4		B	DKI	320	15	8	3
8898		RAMY	03	06	1228	S12	E26	03	8.5		B	DAO	300	28	9	2
8898		HOLL	03	06	1500	S13	E25	03	8.5		B	DSO	370	20	9	2
8898		TACH	03	07	0527	S13	E17	03	8.5			DAI	784	25	8	3
8898		SVTO	03	07	0710	S13	E16	03	8.5		B	EKO	470	18	13	3
8898		KAND	03	07	0722	S13	E16	03	8.5			EKO		12	11	1
8898		TACH	03	08	0657	S12	E04	03	8.6			DAI	1079	14	8	3
8898		SVTO	03	08	0728	S13	E03	03	8.5		B	EKO	540	10	11	2
8898		KAND	03	08	0750	S13	E02	03	8.5			EKO		8	11	4
8898		HOLL	03	08	1618	S13	W03	03	8.4		BG	EKI	460	30	13	4
8898		RAMY	03	08	1825	S13	W03	03	8.5		BG	EKI	410	14	11	2
8898		TACH	03	09	0525	S12	W10	03	8.5			DAI	856	18	9	3
8898		SVTO	03	09	0717	S13	W13	03	8.3		B	EKI	460	16	11	3
8898		RAMY	03	09	1259	S14	W14	03	8.5		B	EKO	510	23	12	3
8898		KAND	03	09	1300	S13	W14	03	8.5			EKO		25	11	3
8898		HOLL	03	09	1555	S13	W15	03	8.5		B	EKO	600	26	12	
8898		LEAR	03	10	0619	S14	W23	03	8.5		B	EAO	530	7	11	3
8898		SVTO	03	10	1003	S13	W25	03	8.5		B	EKO	410	6	12	3
8898		RAMY	03	10	1247	S13	W26	03	8.6		B	EHO	420	17	11	3
8898		HOLL	03	10	1558	S13	W28	03	8.5		BG	EHO	390	32	12	
8898	29612	MWIL	03	10	2200	S13	W32	03	8.5	5	(BP)					
8898		LEAR	03	11	0350	S15	W35	03	8.5		B	EHI	450	28	12	2
8898		SVTO	03	11	0842	S13	W37	03	8.6		B	EAI	340	11	12	2
8898		RAMY	03	11	1235	S13	W39	03	8.6		B	ESI	420	15	11	3
8898		HOLL	03	11	1523	S13	W41	03	8.5		B	ESI	240	17	11	2
8898	29612	MWIL	03	11	1545	S13	W42	03	8.5	5	(B)					
8898		LEAR	03	12	0245	S14	W47	03	8.6		B	EAI	370	17	11	3
8898		TACH	03	12	0558	S12	W49	03	8.5			DAI	262	5	8	4
8898		KAND	03	12	0710	S15	W49	03	8.6			FSO		4	16	1
8898		RAMY	03	12	1235	S13	W53	03	8.5		BG	EKO	310	7	11	4
8898		HOLL	03	12	1507	S13	W55	03	8.5		B	EAO	250	10	11	3
8898	29612	MWIL	03	12	1545	S13	W55	03	8.5	5	(BP)					
8898		LEAR	03	13	0040	S14	W57	03	8.7		B	DAO	290	9	6	4
8898		SVTO	03	13	0647	S14	W61	03	8.7		B	EAO	220	4	12	3
8898		TACH	03	13	0822	S11	W62	03	8.7			DAI	235	3	8	3
8898		KAND	03	13	1157	S13	W60	03	9.0			FSO		8	23	3
8898		RAMY	03	13	1457	S12	W68	03	8.5		B	DSO	140	3	10	1
8898	29612	MWIL	03	13	1545	S13	W68	03	8.5	5	(BP)					
8898		LEAR	03	14	0122	S14	W69	03	8.8		B	DAO	340	4	6	4
8898		TACH	03	14	0510	S12	W72	03	8.8			DAO	220	2	8	3
8898		KAND	03	14	0745	S12	W71	03	9.0			FHO		5	20	3
8898		RAMY	03	14	1213	S12	W79	03	8.5		B	CSO	90	3	13	4
8898		HOLL	03	14	1511	S13	W79	03	8.7		B	FAO	10	4	18	3
8898	29612	MWIL	03	14	1545	S13	W80	03	8.6	5	(BP)					
8898		KAND	03	15	0850	S12	W81	03	9.3			HSX		1	2	4
8898		HOLL	03	15	1556	S12	W85	03	9.3		A	AXX	20	1	1	4
8904A		RAMY	03	09	1259	N14	W02	03	9.4		A	AXX		1		3
8903		RAMY	03	06	1228	S17	E39	03	9.5		A	HSX	20	1	1	2
8903		TACH	03	07	0527	S11	E33	03	9.7			AXX	53	3	2	3
8903		SVTO	03	07	0710	S12	E32	03	9.7		B	DAO	30	2	4	3
8903		KAND	03	07	0722	S12	E33	03	9.8			DAO		2	4	1
8903		TACH	03	08	0657	S11	E19	03	9.7			BRO	56	3	5	3
8903		SVTO	03	08	0728	S10	E19	03	9.7		B	DAO	40	3	6	2
8903		KAND	03	08	0750	S11	E19	03	9.7			DSO		6	6	4
8903		HOLL	03	08	1618	S12	E12	03	9.6		B	DAO	40	9	10	4
8903		RAMY	03	08	1825	S12	E13	03	9.7		B	DAO	40	5	8	2
8903		TACH	03	09	0525	S11	E06	03	9.7			CAI	129	7	6	3
8903		SVTO	03	09	0717	S12	E04	03	9.6		B	DAO	70	6	8	3
8903		RAMY	03	09	1259	S12	E03	03	9.8		B	DRO	20	7	7	3
8903		KAND	03	09	1300	S10	E01	03	9.6			CSO		7	6	3
8903		HOLL	03	09	1555	S12	E02	03	9.8		B	BXO	50	11	7	

SUNSPOT GROUPS
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8903		LEAR	03 10 0619	S11 W07	03 9.7		B	DSO	50	7	8	3
8903		SVTO	03 10 1003	S12 W11	03 9.6		B	DAO	50	6	8	3
8903		RAMY	03 10 1247	S11 W12	03 9.6		B	CRO	20	8	8	3
8903		HOLL	03 10 1558	S12 W13	03 9.7		B	BXO	40	14	9	
8903	29614	MWIL	03 10 2200	S10 W20	03 9.4	4	(AP)					
8903		LEAR	03 11 0350	S12 W19	03 9.7		B	CSO	60	7	10	2
8903		SVTO	03 11 0842	S12 W23	03 9.6		B	DAO	50	5	10	2
8903		RAMY	03 11 1235	S11 W26	03 9.6		B	DSO	40	7	8	3
8903		HOLL	03 11 1523	S12 W26	03 9.7		B	CSO	20	4	8	2
8903	29614	MWIL	03 11 1545	S12 W26	03 9.7	4	(BP)					
8903		LEAR	03 12 0245	S12 W33	03 9.6		B	DSO	40	7	9	3
8903		TACH	03 12 0558	S10 W39	03 9.3			CRI	55	6	4	4
8903		RAMY	03 12 1235	S11 W40	03 9.5		B	CAO	40	10	6	4
8903		HOLL	03 12 1507	S12 W43	03 9.4		B	CAO	40	5	5	3
8903	29614	MWIL	03 12 1545	S11 W43	03 9.4	5	(BP)					
8903		LEAR	03 13 0040	S12 W45	03 9.6		B	CAO	120	10	5	4
8903		SVTO	03 13 0647	S12 W49	03 9.6		B	CAO	60	6	8	3
8903		TACH	03 13 0822	S11 W50	03 9.6			CAI	42	6	6	3
8903		RAMY	03 13 1457	S11 W55	03 9.5		B	CSO	30	5	7	1
8903	29614	MWIL	03 13 1545	S12 W55	03 9.5	5	(BP)					
8903		LEAR	03 14 0122	S12 W57	03 9.8		B	BXO	10	3	3	4
8903		TACH	03 14 0510	S11 W64	03 9.4			HSX	60	1	1	3
8903		RAMY	03 14 1213	S12 W68	03 9.4		B	CSO	50	3	8	4
8903	29614	MWIL	03 14 1545	S12 W68	03 9.5	5	(BP)					
8903		RAMY	03 15 1212	S12 W82	03 9.3		A	HSX	20	1	1	4
8903	29614	MWIL	03 15 1530	S12 W85	03 9.2	4	(AP)					
8907		TACH	03 07 0527	S12 E45	03 10.6			BRO	30	3	1	3
8907		KAND	03 07 0722	S15 E45	03 10.7			CRO		4	6	1
8907		TACH	03 08 0657	S15 E31	03 10.6			BRO	20	5	3	3
8907		KAND	03 08 0750	S15 E31	03 10.7			CAO		6	5	4
8907		HOLL	03 08 1618	S17 E26	03 10.6		B	DSO	50	8	6	4
8907		RAMY	03 08 1825	S18 E25	03 10.7		B	DSO	30	6	5	2
8907		TACH	03 09 0525	S17 E16	03 10.4			AXX	42	2	1	3
8907		SVTO	03 09 0717	S18 E14	03 10.4		B	DAO	20	3	3	3
8907		RAMY	03 09 1259	S16 E14	03 10.6		B	CRO	10	4	6	3
8907		KAND	03 09 1300	S13 E08	03 10.1			CSO		3	8	3
8907		KAND	03 09 1300	S16 E14	03 10.6			CSO		8	8	3
8907		HOLL	03 09 1555	S18 E09	03 10.3		B	CSO	50	5	7	
8907		LEAR	03 10 0619	S17 E02	03 10.4		A	HSX	40	1	1	3
8907		SVTO	03 10 1003	S18 W01	03 10.3		A	HAX	10	2	2	3
8907		RAMY	03 10 1247	S15 E00	03 10.5		B	CRO	10	4	6	3
8907		HOLL	03 10 1558	S16 W01	03 10.6		B	BXO	10	3	6	
8907	29615	MWIL	03 10 2200	S17 W05	03 10.5	4	(B)					
8907		LEAR	03 11 0350	S17 W07	03 10.6		B	CSO	30	5	7	2
8907		SVTO	03 11 0842	S18 W14	03 10.3		A	HRX	10	1	1	2
8907		RAMY	03 11 1235	S18 W13	03 10.5		B	CSO	10	2	7	3
8907		HOLL	03 11 1523	S18 W17	03 10.3		A	AXX		1		2
8907	29615	MWIL	03 11 1545	S17 W14	03 10.6	4	(B)					
8907		LEAR	03 12 0245	S17 W22	03 10.4		B	CSO	20	3	7	3
8907		TACH	03 12 0558	S15 W26	03 10.3			AXX	1	1	1	4
8907		KAND	03 12 0710	S18 W27	03 10.2			AXX		1		1
8907		RAMY	03 12 1235	S17 W30	03 10.2		A	AXX		1		4
8907		HOLL	03 12 1507	S17 W31	03 10.3		A	AXX		1		3
8907	29615	MWIL	03 12 1545	S17 W31	03 10.3	4	(AP)					
8907		LEAR	03 13 0040	S17 W36	03 10.3		A	AXX		1		4
8905		KAND	03 05 0950	S05 E70	03 10.6			AXX		1		3
8905		TACH	03 08 0657	S06 E32	03 10.7			AXX	7	2	1	3
8905		SVTO	03 08 0728	S05 E32	03 10.7		B	CRO	20	2	1	2
8905		KAND	03 08 0750	S05 E31	03 10.6			AXX		3	1	4
8905		HOLL	03 08 1618	S06 E26	03 10.6		B	BXO	20	7	3	4
8905		RAMY	03 08 1825	S07 E25	03 10.6		B	BXO	20	3	2	2
8905		TACH	03 09 0525	S04 E18	03 10.6			AXX	41	3	2	3
8905		SVTO	03 09 0717	S06 E16	03 10.5		B	CRO	10	4	3	3
8905		RAMY	03 09 1259	S05 E14	03 10.6		B	BXO	10	5	3	3
8905		KAND	03 09 1300	S05 E14	03 10.6			BXI		6	3	3
8905		RAMY	03 10 1247	S05 E02	03 10.7		B	BXO		4	2	3
8905		HOLL	03 10 1558	S06 W02	03 10.5		A	AXX	20	4	1	

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8905	29616	MWIL	03	10	2200	S06	W04	03	10.6	3	(AP)					
8907A		RAMY	03	13	1457	N13	W35	03	11.0		A	AXX		1		1
8907A	29623	MWIL	03	13	1545	N13	W35	03	11.0	4	(AP)					
8901		KAND	03	05	0950	S12	E80	03	11.4			AXX		3	2	3
8901		RAMY	03	05	1227	S12	E77	03	11.3		A	AXX		2	2	4
8901		HOLL	03	05	1812	S14	E75	03	11.4		B	CSO	20	2	3	2
8901		SVTO	03	06	0736	S13	E66	03	11.3		B	CRO	20	2	4	3
8901		RAMY	03	06	1228	S12	E64	03	11.3		B	BXO	10	4	4	2
8901		HOLL	03	06	1500	S15	E59	03	11.1		B	BXO	20	6	12	2
8901		TACH	03	07	0527	S13	E55	03	11.4			BRO	32	3	4	3
8901		SVTO	03	07	0710	S15	E50	03	11.1		B	BXO	20	8	16	3
8901		KAND	03	07	0722	S13	E53	03	11.3			BXO		5	4	1
8901		TACH	03	08	0657	S12	E38	03	11.1			BRO	11	2	1	3
8901		SVTO	03	08	0728	S13	E35	03	10.9		B	DAO	60	8	9	2
8901		KAND	03	08	0750	S12	E38	03	11.2			CSO		2	3	4
8901		HOLL	03	08	1618	S13	E33	03	11.2		B	BXO	20	6	5	4
8901		RAMY	03	08	1825	S13	E34	03	11.3		B	BXO	20	3	2	2
8901		TACH	03	09	0525	S11	E22	03	10.9			AXX	25	1	1	3
8901		SVTO	03	09	0717	S14	E21	03	10.9		B	CRO	20	2	6	3
8901		RAMY	03	09	1259	S11	E22	03	11.2		B	CRO	10	3	2	3
8901		KAND	03	09	1300	S10	E20	03	11.0			CSO		4	3	3
8901		HOLL	03	09	1555	S12	E20	03	11.2		B	BXO	10	3	3	
8901		LEAR	03	10	0619	S11	E11	03	11.1		A	HSX	30	1	1	3
8901		SVTO	03	10	1003	S12	E09	03	11.1		B	CAO	30	4	3	3
8901		SVTO	03	10	1003	S15	E04	03	10.7		B	DRO	20	2	1	3
8901		RAMY	03	10	1247	S11	E07	03	11.0		B	BXO	10	4	2	3
8901		HOLL	03	10	1558	S12	E06	03	11.1		B	BXO	20	4	3	
8901	29617	MWIL	03	10	2200	S12	E03	03	11.1	4	(BP)					
8901		LEAR	03	11	0350	S12	W01	03	11.1		B	CRO	20	2	2	2
8901		SVTO	03	11	0842	S13	W01	03	11.3		B	CAO	20	2	7	2
8901		SVTO	03	11	0842	S18	W07	03	10.8		A	HRX		1		2
8901		RAMY	03	11	1235	S12	W07	03	11.0		A	HSX	10	1		3
8901		HOLL	03	11	1523	S12	W08	03	11.0		A	HSX	10	1	1	2
8901	29617	MWIL	03	11	1545	S13	W04	03	11.3	4	(BP)					
8901		LEAR	03	12	0245	S12	W14	03	11.0		A	HSX	10	1	1	3
8901		TACH	03	12	0558	S11	W15	03	11.1			AXX	10	1	1	4
8901		KAND	03	12	0710	S13	W16	03	11.1			AXX		2	1	1
8901		RAMY	03	12	1235	S12	W15	03	11.4		B	CSO	20	4	7	4
8901		HOLL	03	12	1507	S12	W17	03	11.3		B	CSO	10	3	8	3
8901	29617	MWIL	03	12	1545	S12	W17	03	11.4	4	(BP)					
8901		LEAR	03	13	0040	S12	W26	03	11.1		A	AXX		1		4
8901		LEAR	03	13	0040	S13	W18	03	11.7		A	AXX		1		4
8901		SVTO	03	13	0647	S13	W27	03	11.2		B	CAO	20	2	5	3
8901		TACH	03	13	0822	S12	W26	03	11.4			BRO	6	2	6	3
8901		KAND	03	13	1157	S13	W30	03	11.2			DSO		2	6	3
8901		RAMY	03	13	1457	S13	W31	03	11.3		B	BXO	10	2	7	1
8901	29617	MWIL	03	13	1545	S14	W31	03	11.3	4	(B)					
8901		LEAR	03	14	0122	S13	W38	03	11.2		A	AXX	10	1		4
8901		LEAR	03	14	0122	S16	W33	03	11.5		B	BXO		2	1	4
8901		TACH	03	14	0510	S15	W40	03	11.2			AXX	15	1	1	3
8901		KAND	03	14	0745	S12	W41	03	11.2			BXO		3	3	3
8901		RAMY	03	14	1213	S13	W43	03	11.3		B	BXO	10	2	7	4
8901		HOLL	03	14	1511	S14	W45	03	11.2		B	CAO	40	5	7	3
8901	29617	MWIL	03	14	1545	S14	W44	03	11.3	4	(B)					
8901		KAND	03	15	0850	S14	W52	03	11.4			CSO		4	5	4
8901		RAMY	03	15	1212	S14	W55	03	11.3		B	BXO	10	4	4	4
8901	29617	MWIL	03	15	1530	S15	W55	03	11.5	4	(BF)					
8901		HOLL	03	15	1556	S14	W56	03	11.4		B	BXO	20	4	4	4
8901		LEAR	03	16	0349	S16	W65	03	11.2		B	CAO	10	2		3
8901		SVTO	03	16	1129	S13	W70	03	11.2		A	AXX		1		3
8901		RAMY	03	16	1237	S13	W69	03	11.3		A	HRX	10	1	1	4
8901	29617	MWIL	03	16	1600	S15	W70	03	11.4	4	(AF)					
8901		LEAR	03	17	0217	S15	W75	03	11.4		A	AXX		1		2
8911	29624	MWIL	03	13	1545	N12	W25	03	11.8	4	(AP)					
8911		LEAR	03	14	0122	N10	W31	03	11.7		B	CRO	20	2		4
8911		TACH	03	14	0510	N12	W32	03	11.8			ARO	35	2	2	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8911		KAND	03	14	0745	N10	W34	03	11.8			BXO		2	3	3
8911		RAMY	03	14	1213	N11	W37	03	11.7		B	BXO	10	2	3	4
8911		HOLL	03	14	1511	N11	W38	03	11.8		B	DSO	30	2	4	3
8911	29624	MWIL	03	14	1545	N11	W38	03	11.8	4	(B)					
8911		KAND	03	15	0850	N10	W48	03	11.8			BXO		3	5	4
8911		RAMY	03	15	1212	N12	W50	03	11.7		B	BXO	10	3	6	4
8911	29624	MWIL	03	15	1530	N11	W49	03	11.9	3	(BF)					
8911		HOLL	03	15	1556	N11	W50	03	11.9		A	AXX	10	1	1	4
8911		LEAR	03	16	0349	N09	W58	03	11.8		A	AXX		1		3
8911		SVTO	03	16	1129	N11	W63	03	11.7		A	HRX	10	1	1	3
8911		RAMY	03	16	1237	N11	W61	03	11.9		A	AXX		2	1	4
8911	29624	MWIL	03	16	1600	N10	W63	03	11.9	4	(AF)					
8911		LEAR	03	17	0217	N08	W68	03	12.0		A	HRX	30	1		2
8902		SVTO	03	06	0736	S18	E79	03	12.3		A	HRX	30	1	1	3
8902		HOLL	03	06	1500	S18	E79	03	12.6		A	HSX	40	1	2	2
8902		TACH	03	07	0527	S16	E72	03	12.7			HSX	30	1	1	3
8902		SVTO	03	07	0710	S17	E69	03	12.5		A	HSX	50	1	1	3
8902		KAND	03	07	0722	S17	E71	03	12.7			HRX		1	1	1
8902		TACH	03	08	0657	S16	E57	03	12.6			AXX	11	2	1	3
8902		SVTO	03	08	0728	S17	E59	03	12.8		A	HAX	20	2	3	2
8902		KAND	03	08	0750	S16	E58	03	12.7			CSO		2	3	4
8902		HOLL	03	08	1618	S18	E53	03	12.7		A	HSX	50	3	3	4
8902		TACH	03	09	0525	S16	E46	03	12.7			AXX	16	2	1	3
8902		SVTO	03	09	0717	S18	E43	03	12.6		B	DAO	30	3	2	3
8902		RAMY	03	09	1259	S16	E41	03	12.6		B	BXO	10	4	2	3
8902		KAND	03	09	1300	S16	E40	03	12.6			BXO		4	3	3
8902		HOLL	03	09	1555	S18	E39	03	12.6		A	AXX	10	2	1	
8902		SVTO	03	10	1003	S18	E30	03	12.7		A	AXX	10	3	2	3
8902		RAMY	03	10	1247	S17	E28	03	12.7		B	BXO		4	2	3
8902		HOLL	03	10	1558	S18	E26	03	12.6		A	AXX	10	3	1	
8902	29618	MWIL	03	10	2200	S17	E24	03	12.7	4	(BF)					
8902		LEAR	03	11	0350	S17	E21	03	12.7		A	HSX	30	1	1	2
8902		SVTO	03	11	0842	S18	E18	03	12.7		A	HAX	20	1	1	2
8902		RAMY	03	11	1235	S17	E15	03	12.7		A	HSX	20	1	1	3
8902		HOLL	03	11	1523	S18	E14	03	12.7		A	HSX	10	1	1	2
8902	29618	MWIL	03	11	1545	S17	E14	03	12.7	4	(AP)					
8902		LEAR	03	12	0245	S17	E09	03	12.8		B	CSO	20	6	1	3
8902		TACH	03	12	0558	S15	E06	03	12.7			AXX	5	1	1	4
8902		KAND	03	12	0710	S17	E04	03	12.6			HSX		1	1	1
8902		RAMY	03	12	1235	S17	E03	03	12.7		A	HSX	10	1	1	4
8902		HOLL	03	12	1507	S18	E01	03	12.7		A	AXX	10	2	1	3
8902	29618	MWIL	03	12	1545	S16	E01	03	12.7	4	(AP)					
8902		LEAR	03	13	0040	S17	W05	03	12.6		B	BXO	10	5	3	4
8902		SVTO	03	13	0647	S18	W08	03	12.7		B	BXO	10	3	3	3
8902		RAMY	03	13	1457	S18	W13	03	12.6		B	BXO		3	3	1
8902	29618	MWIL	03	13	1545	S18	W13	03	12.7	3	(BP)					
8902		LEAR	03	14	0122	S17	W18	03	12.7		A	AXX		1		4
8906		TACH	03	08	0657	S14	E80	03	14.3			CHI	222	6	4	3
8906		SVTO	03	08	0728	S16	E79	03	14.3		B	DKO	420	4	6	2
8906		KAND	03	08	0750	S15	E80	03	14.4			DKO		3	9	4
8906		HOLL	03	08	1618	S17	E72	03	14.1		A	HK	890	15	9	4
8906		RAMY	03	08	1825	S17	E69	03	14.0		A	HK	750	6	7	2
8906		TACH	03	09	0525	S17	E66	03	14.2			HHX	503	11	3	3
8906		SVTO	03	09	0717	S18	E62	03	14.0		B	EKO	290	6	11	3
8906		RAMY	03	09	1259	S15	E62	03	14.2		B	FKC	740	19	15	3
8906		KAND	03	09	1300	S15	E64	03	14.4			CKO		19	8	3
8906		HOLL	03	09	1555	S16	E60	03	14.2		B	EKO	460	23	12	
8906		LEAR	03	10	0619	S13	E54	03	14.3		B	DKI	450	21	7	3
8906		SVTO	03	10	1003	S17	E52	03	14.4		B	EKO	800	9	13	3
8906		RAMY	03	10	1247	S16	E50	03	14.3		BD	EKC	720	29	14	3
8906		HOLL	03	10	1558	S16	E48	03	14.3		B	CKO	810	38	14	
8906	29619	MWIL	03	10	2200	S16	E45	03	14.3	5	(BP)					
8906		LEAR	03	11	0350	S15	E42	03	14.3		B	EKC	760	39	11	2
8906		SVTO	03	11	0842	S15	E38	03	14.2		B	DKO	860	6	7	2
8906		RAMY	03	11	1235	S17	E38	03	14.4		B	DKI	790	17	10	3
8906		HOLL	03	11	1523	S16	E35	03	14.3		BD	DKC	790	28	8	2
8906	29619	MWIL	03	11	1545	S16	E35	03	14.3	5	(D)					

SUNSPOT GROUPS
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8906		LEAR	03	12	0245	S15	E29	03	14.3		BD	DKC	810	38	9	3
8906		TACH	03	12	0558	S14	E26	03	14.2			HKC	1501	14	8	4
8906		KAND	03	12	0710	S14	E26	03	14.3			DAI		27	8	1
8906		RAMY	03	12	1235	S15	E24	03	14.3		BD	FKI	900	31	17	4
8906		HOLL	03	12	1507	S16	E22	03	14.3		BD	FKC	820	57	16	3
8906	29619	MWIL	03	12	1545	S16	E22	03	14.3	5	(D)					
8906		LEAR	03	13	0040	S16	E18	03	14.4		BD	EKC	850	34	13	4
8906		SVTO	03	13	0647	S15	E14	03	14.3		BG	EKI	830	26	13	3
8906		TACH	03	13	0822	S15	E15	03	14.5			DHI	1499	24	10	3
8906		KAND	03	13	1157	S16	E10	03	14.2			EKC		35	13	3
8906		RAMY	03	13	1457	S17	E10	03	14.4		BD	EKC	820	38	13	1
8906	29619	MWIL	03	13	1545	S16	E08	03	14.3	5	(D)					
8906		LEAR	03	14	0122	S16	E03	03	14.3		BD	EKC	850	28	12	4
8906		TACH	03	14	0510	S17	E04	03	14.5			DKC	1662	38	8	3
8906		KAND	03	14	0745	S16	W01	03	14.2			FKC		58	17	3
8906		RAMY	03	14	1213	S16	W02	03	14.3		BD	EKC	920	34	13	4
8906		HOLL	03	14	1511	S16	W05	03	14.2		BD	FKC	940	55	17	3
8906	29619	MWIL	03	14	1545	S16	W05	03	14.3	5	(D)					
8906		KAND	03	15	0850	S16	W15	03	14.2			EKI		67	15	4
8906		RAMY	03	15	1212	S15	W15	03	14.4		BD	FKC	730	48	15	4
8906	29619	MWIL	03	15	1530	S16	W19	03	14.2	6	(D)					
8906		HOLL	03	15	1556	S16	W16	03	14.4		BG	EKC	700	46	15	4
8906		LEAR	03	16	0349	S16	W25	03	14.3		B	DKI	750	16	8	3
8906		SVTO	03	16	1129	S16	W31	03	14.1		B	EKO	690	10	11	3
8906		RAMY	03	16	1237	S15	W31	03	14.2		G	DKC	630	36	10	4
8906	29619	MWIL	03	16	1600	S16	W31	03	14.3	5	(D)					
8906		HOLL	03	16	2030	S16	W35	03	14.2		B	DKO	630	18	9	2
8906		LEAR	03	17	0217	S17	W37	03	14.3		BGD	DKI	720	13	6	2
8906		TACH	03	17	0449	S14	W38	03	14.3			DAI	1047	29	7	3
8906		SVTO	03	17	0919	S17	W42	03	14.2		B	DKO	530	10	10	3
8906		RAMY	03	17	1225	S15	W44	03	14.2		B	DKI	580	19	10	4
8906		HOLL	03	17	1528	S17	W44	03	14.3		B	DKI	640	31	10	4
8906	29619	MWIL	03	17	2000	S16	W48	03	14.2	5	(BG)					
8906		LEAR	03	18	0534	S19	W51	03	14.3		BGD	DAI	520	11	5	2
8906		SVTO	03	18	0555	S16	W53	03	14.2		B	DAO	240	6	8	3
8906		TACH	03	18	0818	S15	W52	03	14.4			DAI	730	7	6	2
8906		RAMY	03	18	1213	S17	W56	03	14.2		BG	DKO	490	12	9	4
8906	29619	MWIL	03	18	1500	S15	W57	03	14.3	5	(BG)					
8906		HOLL	03	18	1509	S17	W58	03	14.2		B	DKO	410	18	9	3
8906		LEAR	03	19	0230	S18	W64	03	14.2		BGD	DKO	480	12	10	3
8906		TACH	03	19	0656	S17	W66	03	14.3			DAI	251	5	8	3
8906		SVTO	03	19	0708	S16	W68	03	14.1		B	DKO	260	5	8	3
8906		RAMY	03	19	1207	S16	W69	03	14.3		B	DKO	350	7	10	4
8906	29619	MWIL	03	19	1500	S16	W71	03	14.2	5	(B)					
8906		HOLL	03	19	1634	S17	W72	03	14.2		B	DKO	380	6	10	4
8906		SVTO	03	19	1650	S16	W68	03	14.5		B	DKO	260	5	8	3
8906		LEAR	03	20	0036	S15	W75	03	14.3		BGD	DKO	420	6	9	4
8906		TACH	03	20	0438	S15	W78	03	14.3			DAO	103	3	8	3
8906		KAND	03	20	0900	S17	W82	03	14.1			EAO		4	13	4
8906		RAMY	03	20	1317	S16	W82	03	14.3		B	EAO	110	4	11	3
8906		HOLL	03	20	1601	S17	W85	03	14.2		B	EKO	120	3	11	4
8906A		RAMY	03	14	1213	N15	E04	03	14.8		A	AXX		1		4
8906A		HOLL	03	14	1511	N14	E02	03	14.8		B	BXO		2	3	3
8906A	29625	MWIL	03	14	1545	N14	E02	03	14.8	3	(AP)					
8906B		RAMY	03	16	1237	S23	W22	03	14.8		A	AXX		1		4
8906B	29629	MWIL	03	16	1600	S24	W23	03	14.9	3	(AF)					
8908		TACH	03	09	0525	S14	E81	03	15.3			HSX	15	1	1	3
8908		SVTO	03	09	0717	S23	E75	03	15.1		A	HSX	60	1	3	3
8908		RAMY	03	09	1259	S18	E78	03	15.5		B	CAO	30	2	7	3
8908		KAND	03	09	1300	S20	E79	03	15.6			HAX		3	2	3
8908		HOLL	03	09	1555	S19	E75	03	15.4		B	CSO	120	3	10	
8908		LEAR	03	10	0619	S19	E67	03	15.4		A	HSX	120	1	1	3
8908		SVTO	03	10	1003	S21	E65	03	15.4		A	HRX	20	1	1	3
8908		RAMY	03	10	1247	S19	E64	03	15.4		B	CRO	20	3	6	3
8908		HOLL	03	10	1558	S18	E64	03	15.5		B	CAO	80	7	8	
8908	29620	MWIL	03	10	2200	S21	E59	03	15.4	4	(AF)					

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8908		LEAR	03 11 0350	S18 E56	03 15.4		B	DAO	70	3	5	2
8908		SVTO	03 11 0842	S19 E54	03 15.5		B	CAO	30	3	5	2
8908		RAMY	03 11 1235	S20 E50	03 15.3		B	CSO	30	3	3	3
8908		HOLL	03 11 1523	S19 E49	03 15.4		B	CSO	20	3	3	2
8908	29620	MWIL	03 11 1545	S20 E49	03 15.4	4	(BF)					
8908		LEAR	03 12 0245	S19 E43	03 15.4		B	CSO	40	3	4	3
8908		TACH	03 12 0558	S20 E42	03 15.5			AXX	5	1	1	4
8908		KAND	03 12 0710	S20 E42	03 15.5			HAX		2	2	1
8908		RAMY	03 12 1235	S21 E38	03 15.4		A	HSX	20	2	1	4
8908		HOLL	03 12 1507	S21 E38	03 15.5		B	CSO	10	4	3	3
8908	29620	MWIL	03 12 1545	S20 E38	03 15.6	4	(AF)					
8908		LEAR	03 13 0040	S20 E33	03 15.5		B	BXO	10	3	4	4
8908		SVTO	03 13 0647	S21 E29	03 15.5		A	AXX	10	2	2	3
8908		HOLL	03 14 1511	S23 E10	03 15.4		B	BXO		2	3	3
8908		KAND	03 15 0850	S21 E03	03 15.6			BXO		7	3	4
8908		RAMY	03 15 1212	S22 E01	03 15.6		A	AXX		2	1	4
8908	29627	MWIL	03 15 1530	S21 W00	03 15.6	4	(AF)					
8906C	29630	MWIL	03 16 1600	S10 W08	03 16.1	3	(AP)					
8906C		HOLL	03 16 2030	S09 W11	03 16.0		A	AXX		1		2
8906C		HOLL	03 20 1601	S09 W65	03 15.8		A	AXX	10	3	3	4
8906C		RAMY	03 21 1238	S08 W76	03 15.8		A	AXX		1		3
8908B	29628	MWIL	03 15 1530	S16 E07	03 16.2	3	(AP)					
8908A		KAND	03 13 1157	N17 E51	03 17.4			AXX		1		3
8908A		RAMY	03 16 1237	N16 E11	03 17.4		B	BXO		3	2	4
8908A	29631	MWIL	03 16 1600	N16 E09	03 17.3	3	(B)					
8909		SVTO	03 11 0842	S29 E85	03 18.0		A	HRX	30	1	3	2
8909		RAMY	03 11 1235	S30 E80	03 17.8		A	HSX	30	1	2	3
8909		HOLL	03 11 1523	S29 E80	03 17.9		A	HSX	30	1	1	2
8909		LEAR	03 12 0245	S28 E75	03 18.0		A	HSX	30	1	2	3
8909		TACH	03 12 0558	S29 E73	03 18.0			HSX	50	3	2	4
8909		KAND	03 12 0710	S29 E73	03 18.0			HSX		1	2	1
8909		RAMY	03 12 1235	S29 E68	03 17.8		A	HSX	40	1	2	4
8909		HOLL	03 12 1507	S31 E69	03 18.1		A	HSX	60	4	2	3
8909	29621	MWIL	03 12 1545	S30 E67	03 17.9	4	(AP)					
8909		LEAR	03 13 0040	S29 E63	03 18.0		A	HSX	60	3	3	4
8909		SVTO	03 13 0647	S29 E60	03 18.0		A	HAX	40	2	4	3
8909		TACH	03 13 0822	S29 E59	03 18.0			HSX	50	1	1	3
8909		KAND	03 13 1157	S29 E56	03 17.9			HSX		2	4	3
8909		RAMY	03 13 1457	S30 E59	03 18.3		B	CSO	70	3	10	1
8909	29621	MWIL	03 13 1545	S30 E55	03 18.0	5	(BP)					
8909		LEAR	03 14 0122	S28 E52	03 18.1		B	CSO	70	4	5	4
8909		TACH	03 14 0510	S29 E49	03 18.0			CRO	105	2	6	3
8909		KAND	03 14 0745	S29 E43	03 17.7			CAO		3	8	3
8909		RAMY	03 14 1213	S29 E46	03 18.1		B	CSO	30	4	8	4
8909		HOLL	03 14 1511	S28 E46	03 18.2		B	ESO	60	5	11	3
8909	29621	MWIL	03 14 1545	S29 E44	03 18.1	5	(BP)					
8909		KAND	03 15 0850	S29 E34	03 18.0			CAO		4	9	4
8909		RAMY	03 15 1212	S28 E33	03 18.1		B	CSO	20	3	8	4
8909	29621	MWIL	03 15 1530	S29 E31	03 18.1	4	(AP)					
8909		HOLL	03 15 1556	S28 E31	03 18.1		B	BXO	20	3	8	4
8909		LEAR	03 16 0349	S28 E21	03 17.8		A	HSX	10	1	1	3
8909		SVTO	03 16 1129	S29 E19	03 18.0		B	CAO	20	2	7	3
8909		RAMY	03 16 1237	S28 E18	03 17.9		B	CRO	10	3	6	4
8909	29621	MWIL	03 16 1600	S28 E18	03 18.1	4	(AP)					
8909		HOLL	03 16 2030	S29 E15	03 18.0		B	CSO	20	2	8	2
8909		LEAR	03 17 0217	S27 E13	03 18.1		B	CSO	50	2	7	2
8909		TACH	03 17 0449	S28 E10	03 18.0			BAI	479	2	6	3
8909		SVTO	03 17 0919	S29 E09	03 18.1		B	CHO	30	3	7	3
8909		RAMY	03 17 1225	S29 E06	03 18.0		B	BXO	10	3	7	4
8909		HOLL	03 17 1528	S29 E05	03 18.0		B	CSO	20	4	8	4
8909	29621	MWIL	03 17 2000	S28 W00	03 17.8	4	(BG)					
8909		LEAR	03 18 0534	S29 W05	03 17.8		B	DSO	40	4	3	2
8909		SVTO	03 18 0555	S28 W07	03 17.7		B	DAO	30	3	3	2
8909		TACH	03 18 0818	S28 W05	03 17.9			ARO	34	4	4	2
8909		RAMY	03 18 1213	S28 W10	03 17.7		B	BXO	20	5	3	4

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo Day	Time (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8909	29621	MWIL	03 18	1500	S29 W10	03 17.8	4	(BG)					
8909		HOLL	03 18	1509	S29 W11	03 17.8		B	CSO	10	7	3	3
8909		LEAR	03 19	0230	S29 W14	03 18.0		B	DRO	80	9	6	3
8909		TACH	03 19	0656	S27 W19	03 17.8			ARO	7	3	3	3
8909		SVTO	03 19	0708	S29 W18	03 17.9		B	DAO	30	5	6	3
8909		RAMY	03 19	1207	S29 W18	03 18.1		B	BXO	10	5	11	4
8909	29621	MWIL	03 19	1500	S28 W23	03 17.8	4	(BG)					
8909		HOLL	03 19	1634	S29 W24	03 17.8		B	BXO	10	5	6	4
8909		SVTO	03 19	1650	S29 W18	03 18.3		B	DAO	30	5	6	3
8909		LEAR	03 20	0036	S27 W29	03 17.8		B	CRO	10	2	2	4
8909		TACH	03 20	0438	S28 W30	03 17.8			AXX	25	1	1	3
8909		KAND	03 20	0900	S29 W34	03 17.7			AXX		1	1	4
8909		RAMY	03 20	1317	S29 W37	03 17.6		A	AXX		1		3
8909		HOLL	03 20	1601	S29 W37	03 17.8		A	AXX		1		4
8910		LEAR	03 12	0245	N14 E77	03 17.9		A	HSX	20	1	2	3
8910		TACH	03 12	0558	N11 E78	03 18.1			HAO	80	2	2	4
8910		KAND	03 12	0710	N11 E77	03 18.1			DAO		2	3	1
8910		RAMY	03 12	1235	N10 E73	03 18.0		B	CAO	150	3	5	4
8910		HOLL	03 12	1507	N09 E76	03 18.3		B	CAO	240	5	8	3
8910	29622	MWIL	03 12	1545	N10 E73	03 18.1	4	(B)					
8910		LEAR	03 13	0040	N10 E68	03 18.1		B	CAI	170	4	4	4
8910		SVTO	03 13	0647	N09 E65	03 18.2		B	DAO	100	3	5	3
8910		TACH	03 13	0822	N10 E66	03 18.3			HSX	85	3	3	3
8910		KAND	03 13	1157	N10 E61	03 18.1			DAO		4	6	3
8910		RAMY	03 13	1457	N09 E60	03 18.1		B	DAO	200	6	4	1
8910	29622	MWIL	03 13	1545	N10 E59	03 18.1	5	(BP)					
8910		LEAR	03 14	0122	N10 E54	03 18.1		B	CSI	270	6	4	4
8910		TACH	03 14	0510	N10 E52	03 18.1			HHX	362	7	2	3
8910		KAND	03 14	0745	N10 E51	03 18.1			DAO		12	6	3
8910		RAMY	03 14	1213	N10 E49	03 18.2		B	DAO	210	11	5	4
8910		HOLL	03 14	1511	N10 E47	03 18.2		B	DKO	290	13	9	3
8910	29622	MWIL	03 14	1545	N10 E48	03 18.3	5	(D)					
8910		KAND	03 15	0850	N10 E38	03 18.2			DSO		21	8	4
8910		RAMY	03 15	1212	N11 E37	03 18.3		B	DAO	240	19	8	4
8910	29622	MWIL	03 15	1530	N10 E35	03 18.3	5	(D)					
8910		HOLL	03 15	1556	N11 E35	03 18.3		B	DSO	260	26	8	4
8910		LEAR	03 16	0349	N11 E29	03 18.3		B	DKI	360	18	6	3
8910		SVTO	03 16	1129	N11 E24	03 18.3		B	DAO	170	10	9	3
8910		RAMY	03 16	1237	N11 E24	03 18.3		BG	DAI	200	30	9	4
8910	29622	MWIL	03 16	1600	N11 E21	03 18.2	5	(D)					
8910		HOLL	03 16	2030	N11 E20	03 18.3		B	DAO	180	26	9	2
8910		LEAR	03 17	0217	N12 E16	03 18.3		B	DAI	310	16	9	2
8910		TACH	03 17	0449	N12 E15	03 18.3			DRO	50	28	7	3
8910		SVTO	03 17	0919	N11 E13	03 18.4		B	DKI	240	15	10	3
8910		RAMY	03 17	1225	N12 E11	03 18.3		BG	DAI	250	34	10	4
8910		HOLL	03 17	1528	N11 E08	03 18.2		B	DSI	230	56	9	4
8910	29622	MWIL	03 17	2000	N11 E05	03 18.2	5	(B)					
8910		LEAR	03 18	0534	N11 W01	03 18.1		BG	DAI	450	49	10	2
8910		SVTO	03 18	0555	N12 E01	03 18.3		BG	DAI	190	18	8	3
8910		TACH	03 18	0818	N12 W02	03 18.2			DAI	585	19	4	2
8910		RAMY	03 18	1213	N11 W04	03 18.2		B	DAC	520	41	10	4
8910	29622	MWIL	03 18	1500	N11 W05	03 18.2	5	(D)					
8910		HOLL	03 18	1509	N12 W05	03 18.2		B	DAC	290	44	10	3
8910		LEAR	03 19	0230	N11 W12	03 18.2		BG	EKI	580	50	11	3
8910		TACH	03 19	0656	N13 W15	03 18.1			DAI	410	21	6	3
8910		SVTO	03 19	0708	N11 W13	03 18.3		BG	EAC	440	32	13	3
8910		RAMY	03 19	1207	N12 W17	03 18.2		BGD	EKC	600	53	11	4
8910	29622	MWIL	03 19	1500	N12 W18	03 18.3	5	(D)					
8910		HOLL	03 19	1634	N12 W18	03 18.3		BGD	EKC	580	54	12	4
8910		SVTO	03 19	1650	N11 W13	03 18.7		BG	EAC	440	32	13	3
8910		LEAR	03 20	0036	N13 W23	03 18.3		BG	EKC	690	62	12	4
8910		KAND	03 20	0900	N12 W29	03 18.2			EKC		63	11	4
8910		RAMY	03 20	1317	N12 W30	03 18.3		BGD	EKC	720	52	12	3
8910	29622	MWIL	03 20	1530	N12 W31	03 18.3	4	(BP)					
8910		HOLL	03 20	1601	N13 W32	03 18.2		BGD	EKC	630	50	12	4
8910		SVTO	03 21	0600	N12 W39	03 18.3		BG	EKI	660	24	11	3
8910		KAND	03 21	1110	N13 W44	03 18.1			EKO		34	12	2
8910		RAMY	03 21	1238	N13 W44	03 18.2		BG	EKC	550	27	11	3

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8910	29622	MWIL	03	21	1615	N13	W45	03	18.3	4	(BD)					
8910		HOLL	03	21	2010	N13	W48	03	18.2		BG	EKI	740	33	12	2
8910		LEAR	03	22	0104	N13	W47	03	18.5		BGD	EKC	900	27	8	4
8910		TACH	03	22	0508	N13	W52	03	18.3			DHC	1001	31	10	3
8910		SVTO	03	22	0807	N14	W55	03	18.2		BG	EKI	760	18	13	3
8910		KAND	03	22	0930	N13	W54	03	18.3			EKC		16	12	3
8910		RAMY	03	22	1227	N13	W55	03	18.4		BGD	EKC	760	23	11	3
8910	29622	MWIL	03	22	1500	N13	W59	03	18.2	5	(BP)					
8910		HOLL	03	22	1500	N14	W58	03	18.2		BG	EHI	780	32	11	2
8910		LEAR	03	23	0410	N15	W65	03	18.2		BGD	EKC	460	10	11	2
8910		TACH	03	23	0545	N12	W66	03	18.3			DAI	257	10	10	4
8910		SVTO	03	23	0616	N13	W65	03	18.3		BG	EKI	530	11	13	3
8910		KAND	03	23	0705	N13	W67	03	18.2			EAO		6	13	3
8910		RAMY	03	23	1350	N12	W70	03	18.3		BG	EAI	430	9	11	2
8910	29622	MWIL	03	23	1515	N13	W73	03	18.1	5	(BP)					
8910		HOLL	03	23	1520	N13	W72	03	18.2		BG	EAC	360	13	13	3
8910		TACH	03	24	0522	N14	W74	03	18.6			DAI	118	8	2	4
8910		SVTO	03	24	0630	N14	W75	03	18.6		B	DAO	90	3	7	3
8910		LEAR	03	24	0713	N14	W79	03	18.3		B	DSO	60	2	7	2
8910		KAND	03	24	0735	N13	W78	03	18.4			DAO		3	10	5
8910		RAMY	03	24	1346	N13	W78	03	18.7		A	HSX	90	1	3	4
8910		HOLL	03	24	1537	N13	W80	03	18.6		A	HAX	60	2	3	2
8910	29622	MWIL	03	24	1715	N13	W84	03	18.4	3	B					
8918		RAMY	03	19	1207	N32	W08	03	18.9		B	BXO	10	4	5	4
8918	29637	MWIL	03	19	1500	N32	W09	03	18.9	4	(B)					
8918		HOLL	03	19	1634	N32	W11	03	18.8		B	CAO	30	7	6	4
8918		LEAR	03	20	0036	N33	W14	03	18.9		B	DSO	50	12	6	4
8918		TACH	03	20	0438	N32	W16	03	18.9			CAO	85	3	6	3
8918		KAND	03	20	0900	N31	W20	03	18.8			CAO		9	7	4
8918		RAMY	03	20	1317	N32	W22	03	18.8		B	DXO	60	11	7	3
8918	29637	MWIL	03	20	1530	N32	W22	03	18.9	4	(B)					
8918		HOLL	03	20	1601	N31	W24	03	18.8		B	DAO	70	13	8	4
8918		SVTO	03	21	0600	N31	W32	03	18.7		B	DAO	180	6	10	3
8918		KAND	03	21	1110	N30	W35	03	18.7			EAO		9	11	2
8918		RAMY	03	21	1238	N32	W36	03	18.7		BG	EAI	230	11	11	3
8918	29637	MWIL	03	21	1615	N32	W37	03	18.7	5	(B)					
8918		HOLL	03	21	2010	N32	W39	03	18.7		B	EKO	460	15	11	2
8918		LEAR	03	22	0104	N31	W38	03	19.0		BG	DKI	600	16	9	4
8918		TACH	03	22	0508	N33	W44	03	18.7			DAI	638	14	11	3
8918		SVTO	03	22	0807	N33	W48	03	18.5		B	EKO	400	13	15	3
8918		KAND	03	22	0930	N31	W47	03	18.7			EHO		8	11	3
8918		RAMY	03	22	1227	N32	W48	03	18.7		B	ESO	380	12	12	3
8918	29637	MWIL	03	22	1500	N31	W51	03	18.6	5	(BF)					
8918		HOLL	03	22	1500	N32	W51	03	18.6		B	EHO	400	6	12	2
8918		LEAR	03	23	0410	N33	W55	03	18.8		B	EAO	400	5	11	2
8918		TACH	03	23	0545	N31	W58	03	18.7			DAI	300	3	11	4
8918		SVTO	03	23	0616	N32	W57	03	18.7		B	EKO	350	7	14	3
8918		KAND	03	23	0705	N31	W60	03	18.6			EHO		3	13	3
8918		RAMY	03	23	1350	N31	W60	03	18.8		B	EAO	280	6	11	2
8918	29637	MWIL	03	23	1515	N32	W62	03	18.7	5	(B)					
8918		HOLL	03	23	1520	N31	W65	03	18.5		B	EAO	290	9	12	3
8918		TACH	03	24	0522	N33	W70	03	18.7			DAI	280	5	10	4
8918		SVTO	03	24	0630	N32	W69	03	18.8		B	FAO	210	3	16	3
8918		LEAR	03	24	0713	N32	W69	03	18.8		B	ESO	240	3	12	2
8918		KAND	03	24	0735	N32	W73	03	18.5			ESO		4	15	5
8918		RAMY	03	24	1346	N32	W69	03	19.1		B	CSO	180	2	3	4
8918		HOLL	03	24	1537	N32	W73	03	18.9		B	CAO	130	3	6	2
8918	29637	MWIL	03	24	1715	N32	W74	03	18.9	4	(AF)					
8913		RAMY	03	14	1213	S14	E71	03	19.9		A	AXX		1		4
8913		HOLL	03	14	1511	S14	E71	03	20.0		B	BXO	10	2	3	3
8913	29626	MWIL	03	14	1545	S15	E71	03	20.0	4	(B)					
8913		KAND	03	15	0850	S15	E66	03	20.4			BXO		5	7	4
8913		RAMY	03	15	1212	S16	E62	03	20.2		B	CRO	20	4	7	4
8913	29626	MWIL	03	15	1530	S16	E61	03	20.3	4	(B)					
8913		HOLL	03	15	1556	S16	E61	03	20.3		B	BXO	40	5	7	4
8913		LEAR	03	16	0349	S15	E53	03	20.2		B	DAO	80	6	5	3
8913		SVTO	03	16	1129	S17	E49	03	20.2		B	DAO	60	4	8	3

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8913		RAMY	03	16	1237	S16	E48	03	20.2		B	DSO	60	8	8	4
8913	29626	MWIL	03	16	1600	S15	E47	03	20.2	5	(B)					
8913		HOLL	03	16	2030	S17	E44	03	20.2		B	DSO	40	8	9	2
8913		LEAR	03	17	0217	S14	E41	03	20.2		B	DAO	70	8	7	2
8913		TACH	03	17	0449	S16	E40	03	20.2			DAI	187	7	5	3
8913		SVTO	03	17	0919	S17	E38	03	20.3		B	DAO	110	6	9	3
8913		HOLL	03	17	1528	S16	E34	03	20.2		B	DSO	100	17	10	4
8913	29626	MWIL	03	17	2000	S16	E31	03	20.2	5	(B)					
8913		LEAR	03	18	0534	S14	E27	03	20.3		BG	DAI	180	14	9	2
8913		SVTO	03	18	0555	S16	E26	03	20.2		B	DAO	130	8	10	3
8913		TACH	03	18	0818	S15	E25	03	20.2			DAI	169	8	9	2
8913		RAMY	03	18	1213	S17	E23	03	20.2		B	DAO	120	15	10	4
8913	29626	MWIL	03	18	1500	S16	E21	03	20.2	5	(B)					
8913		HOLL	03	18	1509	S16	E22	03	20.3		B	DAC	130	15	10	3
8913		LEAR	03	19	0230	S15	E15	03	20.2		B	EAO	250	19	11	3
8913		TACH	03	19	0656	S15	E11	03	20.1			CAI	248	12	8	3
8913		SVTO	03	19	0708	S16	E13	03	20.3		B	EAI	180	10	11	3
8913		RAMY	03	19	1207	S16	E09	03	20.2		B	EAI	220	27	11	4
8913	29626	MWIL	03	19	1500	S16	E07	03	20.1	5	(B)					
8913		HOLL	03	19	1634	S16	E06	03	20.1		B	EAC	210	23	11	4
8913		SVTO	03	19	1650	S16	E03	03	19.9		B	EAI	180	10	11	3
8913		LEAR	03	20	0036	S16	E02	03	20.2		B	EKO	250	30	12	4
8913		TACH	03	20	0438	S15	W03	03	20.0			DAI	395	13	6	3
8913		KAND	03	20	0900	S15	W04	03	20.1			EAO		23	12	4
8913		RAMY	03	20	1317	S15	W05	03	20.2		B	ESI	160	32	12	3
8913	29626	MWIL	03	20	1530	S16	W07	03	20.1	4	(B)					
8913		HOLL	03	20	1601	S16	W08	03	20.1		B	EAC	200	36	12	4
8913		SVTO	03	21	0600	S17	W15	03	20.1		B	EAO	310	19	12	3
8913		KAND	03	21	1110	S15	W18	03	20.1			DAO		27	10	2
8913		RAMY	03	21	1238	S15	W18	03	20.2		B	ESI	210	22	11	3
8913	29626	MWIL	03	21	1615	S15	W21	03	20.1	5	(BP)					
8913		HOLL	03	21	2010	S16	W23	03	20.1		B	ESO	250	37	13	2
8913		LEAR	03	22	0104	S16	W25	03	20.1		B	EAI	220	20	10	4
8913		TACH	03	22	0508	S15	W27	03	20.2			DAI	374	13	10	3
8913		SVTO	03	22	0807	S16	W29	03	20.1		B	EAO	170	16	14	3
8913		KAND	03	22	0930	S16	W30	03	20.1			EAO		13	11	3
8913		RAMY	03	22	1227	S15	W33	03	20.0		B	ESI	170	19	12	3
8913		HOLL	03	22	1500	S16	W34	03	20.0		B	ESO	180	11	12	2
8913	29626	MWIL	03	22	1500	S16	W34	03	20.0	5	(BG)					
8913		LEAR	03	23	0410	S15	W39	03	20.2		B	ESO	110	11	12	2
8913		TACH	03	23	0545	S15	W41	03	20.1			DAI	131	9	10	4
8913		SVTO	03	23	0616	S16	W41	03	20.1		B	EAO	140	15	14	3
8913		KAND	03	23	0705	S16	W43	03	20.0			EAO		6	12	3
8913		RAMY	03	23	1350	S17	W46	03	20.1		B	EAO	150	9	12	2
8913	29626	MWIL	03	23	1515	S16	W47	03	20.1	5	(B)					
8913		HOLL	03	23	1520	S17	W47	03	20.1		B	EAO	120	16	13	3
8913		TACH	03	24	0522	S16	W54	03	20.1			DAI	166	9	9	4
8913		SVTO	03	24	0630	S16	W55	03	20.1		B	EAO	100	9	13	3
8913		LEAR	03	24	0713	S16	W55	03	20.1		B	ESO	100	6	12	2
8913		KAND	03	24	0735	S15	W55	03	20.1			ESO		9	12	3
8913		RAMY	03	24	1346	S14	W59	03	20.1		B	EAO	110	6	11	4
8913		HOLL	03	24	1537	S17	W62	03	19.9		B	EAO	100	11	13	2
8913	29626	MWIL	03	24	1715	S16	W61	03	20.1	4	(B)					
8913		SVTO	03	25	0835	S17	W70	03	20.0		B	EAO	100	6	12	3
8913		KAND	03	25	1110	S16	W70	03	20.1			ESO		8	15	3
8913		RAMY	03	25	1234	S16	W71	03	20.1		B	ESO	50	5	13	3
8913	29626	MWIL	03	25	1515	S16	W71	03	20.2	4	(B)					
8913		HOLL	03	25	1617	S16	W76	03	19.9		B	EAO	60	8	13	3
8913		LEAR	03	26	0350	S16	W81	03	20.0		A	HSX	80	1	1	2
8913		KAND	03	26	0755	S17	W77	03	20.5			HAX		1	2	3
8913		RAMY	03	26	1216	S16	W80	03	20.4		A	HSX	20	1	1	3
8913	29626	MWIL	03	26	1500	S16	W82	03	20.4	3	AF					
8913		HOLL	03	26	1608	S17	W80	03	20.6		A	AXX	30	1	1	3
8917	29634	MWIL	03	18	1500	N20	E23	03	20.4	4	(B)					
8917		HOLL	03	18	1509	N20	E23	03	20.4		B	CRO	10	2	4	3
8917		LEAR	03	19	0230	N21	E15	03	20.2		B	DAO	120	11	6	3
8917		TACH	03	19	0656	N20	E13	03	20.3			BAI	44	6	5	3
8917		SVTO	03	19	0708	N19	E15	03	20.4		B	DAO	40	8	6	3

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8917		RAMY	03	19	1207	N20	E11	03	20.3		B	DSO	40	19	6	4
8917	29634	MWIL	03	19	1500	N19	E10	03	20.4	5	(D)					
8917		HOLL	03	19	1634	N18	E08	03	20.3		B	DAI	80	15	6	4
8917		SVTO	03	19	1650	N19	E15	03	20.8		B	DAO	40	8	6	3
8917		LEAR	03	20	0036	N19	E06	03	20.5		B	DAO	200	19	7	4
8917		TACH	03	20	0438	N19	E03	03	20.4			DAI	184	6	5	3
8917		TACH	03	20	0438	N21	E01	03	20.3			DAI	1033	18	7	3
8917		KAND	03	20	0900	N19	W01	03	20.3			DAO		9	8	4
8917		RAMY	03	20	1317	N20	W03	03	20.3		B	DAO	130	11	8	3
8917	29634	MWIL	03	20	1530	N19	W04	03	20.3	4	(B)					
8917		HOLL	03	20	1601	N18	W05	03	20.3		B	DSO	130	11	8	4
8917		SVTO	03	21	0600	N19	W13	03	20.2		B	DAO	160	7	8	3
8917		KAND	03	21	1110	N19	W15	03	20.3			DAO		15	8	2
8917		RAMY	03	21	1238	N21	W16	03	20.3		B	DSI	200	13	8	3
8917	29634	MWIL	03	21	1615	N20	W17	03	20.4	4	(BG)					
8917		HOLL	03	21	2010	N20	W21	03	20.2		B	DSO	240	11	9	2
8917		LEAR	03	22	0104	N20	W22	03	20.4		BG	DSI	240	14	7	4
8917		TACH	03	22	0508	N20	W24	03	20.4			DAI	526	18	8	3
8917		SVTO	03	22	0807	N21	W27	03	20.3		BG	DAI	220	16	10	3
8917		KAND	03	22	0930	N19	W27	03	20.3			DAO		9	9	3
8917		RAMY	03	22	1227	N20	W29	03	20.3		B	DAI	260	20	7	3
8917	29634	MWIL	03	22	1500	N20	W30	03	20.3	4	(B)					
8917		HOLL	03	22	1500	N20	W31	03	20.2		B	DSO	270	17	9	2
8917		LEAR	03	23	0410	N21	W36	03	20.4		B	DSO	230	9	10	2
8917		TACH	03	23	0545	N20	W38	03	20.3			DAI	274	10	7	4
8917		SVTO	03	23	0616	N19	W38	03	20.4		B	DAO	180	9	9	3
8917		KAND	03	23	0705	N19	W39	03	20.3			DAO		6	9	3
8917		RAMY	03	23	1350	N19	W42	03	20.4		B	DKO	330	9	10	2
8917	29634	MWIL	03	23	1515	N20	W44	03	20.3	5	(B)					
8917		HOLL	03	23	1520	N18	W45	03	20.2		B	DAO	200	13	9	3
8917		TACH	03	24	0522	N19	W51	03	20.3			DAI	237	13	8	4
8917		SVTO	03	24	0630	N20	W52	03	20.3		B	EAI	150	11	11	3
8917		LEAR	03	24	0713	N20	W51	03	20.4		B	DSO	140	11	8	2
8917		KAND	03	24	0735	N21	W53	03	20.2			DSI		12	8	5
8917		RAMY	03	24	1346	N21	W56	03	20.3		B	DAO	160	7	9	4
8917		HOLL	03	24	1537	N18	W58	03	20.2		B	DSO	180	12	8	2
8917	29634	MWIL	03	24	1715	N19	W57	03	20.4	4	(B)					
8917		SVTO	03	25	0835	N19	W66	03	20.3		B	DAO	80	4	9	3
8917		KAND	03	25	1110	N18	W68	03	20.3			CSO		6	7	3
8917		RAMY	03	25	1234	N19	W68	03	20.3		B	DSO	50	4	9	3
8917	29634	MWIL	03	25	1515	N19	W70	03	20.3	4	(B)					
8917		HOLL	03	25	1617	N19	W70	03	20.3		B	DSO	50	3	9	3
8917		LEAR	03	26	0350	N18	W71	03	20.7		B	DSO	50	2	3	2
8917		KAND	03	26	0755	N18	W78	03	20.4			HSX		1	2	3
8917		RAMY	03	26	1216	N18	W81	03	20.3		A	HSX	20	1	1	3
8917	29634	MWIL	03	26	1500	N19	W84	03	20.2	3	AF					
8917		HOLL	03	26	1608	N18	W80	03	20.6		A	HSX	120	1	3	3
8926		LEAR	03	23	0410	S09	W08	03	22.6		B	BXO	10	5	2	2
8926		TACH	03	23	0545	S11	W10	03	22.5			ARO	10	4	2	4
8926		SVTO	03	23	0616	S11	W08	03	22.6		B	DAO	30	5	4	3
8926		KAND	03	23	0705	S11	W11	03	22.5			AXX		2		3
8926		RAMY	03	23	1350	S10	W13	03	22.6		B	DAO	50	5	3	2
8926	29644	MWIL	03	23	1515	S10	W14	03	22.6	5	(BP)					
8926		HOLL	03	23	1520	S11	W14	03	22.6		B	DAO	40	5	4	3
8926		TACH	03	24	0522	S09	W20	03	22.7			DAI	178	15	5	4
8926		SVTO	03	24	0630	S09	W21	03	22.7		B	DAI	50	10	8	3
8926		LEAR	03	24	0713	S09	W22	03	22.6		B	DSO	70	9	7	2
8926		KAND	03	24	0735	S09	W23	03	22.6			DAO		14	8	5
8926		RAMY	03	24	1346	S10	W26	03	22.6		B	DAI	110	10	8	4
8926		HOLL	03	24	1537	S11	W27	03	22.6		B	DAO	150	16	8	2
8926	29644	MWIL	03	24	1715	S10	W27	03	22.7	4	(BG)					
8926		VORO	03	24	2307	S10	W31	03	22.6			DSI	261	10	7	3
8926		SVTO	03	25	0835	S09	W37	03	22.6		B	DAI	80	15	8	3
8926		KAND	03	25	1110	S10	W39	03	22.5			DSO		20	9	3
8926		RAMY	03	25	1234	S10	W39	03	22.6		BG	DSO	80	22	9	3
8926	29644	MWIL	03	25	1515	S10	W41	03	22.5	4	(D)					
8926		HOLL	03	25	1617	S11	W42	03	22.5		BG	DSO	80	19	8	3
8926		VORO	03	26	0053	S10	W47	03	22.5			DSI	344	9	5	3

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8926		LEAR	03	26	0350	S09	W47	03	22.6		BG	DAO	80	8	7	2
8926		KAND	03	26	0755	S10	W50	03	22.6			DSO		6	8	3
8926		RAMY	03	26	1216	S09	W52	03	22.6		B	DSO	60	11	8	3
8926	29644	MWIL	03	26	1500	S10	W54	03	22.6	4	(D)					
8926		HOLL	03	26	1608	S10	W54	03	22.6		B	DSO	120	16	8	3
8926		VORO	03	26	2235	S10	W60	03	22.4			DAO	84	3	5	2
8926		LEAR	03	27	0104	S10	W60	03	22.5		B	CSO	40	4	9	2
8926		KAND	03	27	0825	S10	W66	03	22.4			CAO		4	8	3
8926		SVTO	03	27	1025	S09	W63	03	22.7		B	DAO	60	5	8	3
8926		RAMY	03	27	1218	S09	W66	03	22.5		B	DSO	60	6	8	3
8926		HOLL	03	27	1500	S09	W65	03	22.7		B	CSO	120	7	7	3
8926		LEAR	03	28	0054	S10	W70	03	22.8		B	DSO	110	8	5	4
8926		KAND	03	28	0645	S10	W78	03	22.4			AXX		2	3	3
8926		SVTO	03	28	1015	S09	W81	03	22.3		B	DSO	40	2	10	3
8926	29644	MWIL	03	28	1515	S10	W78	03	22.8	3	AP					
8915		RAMY	03	16	1237	N22	E82	03	22.8		A	HSX	60	1	2	4
8915		HOLL	03	16	2030	N23	E78	03	22.9		A	HSX	120	1	2	2
8915		LEAR	03	17	0217	N25	E73	03	22.7		A	HSX	90	1	2	2
8915		TACH	03	17	0449	N22	E74	03	22.9			HHX	150	3	2	3
8915		SVTO	03	17	0919	N22	E69	03	22.7		A	HAX	120	1	3	3
8915		RAMY	03	17	1225	N22	E68	03	22.7		A	HSX	110	1	2	4
8915		HOLL	03	17	1528	N24	E68	03	22.9		A	HSX	180	1	2	4
8915		LEAR	03	18	0534	N25	E56	03	22.6		B	CSO	200	2	4	2
8915		SVTO	03	18	0555	N22	E58	03	22.7		A	HAX	80	1	3	2
8915		TACH	03	18	0818	N22	E57	03	22.7			HSX	100	1	2	2
8915		RAMY	03	18	1213	N23	E57	03	22.9		B	CSO	200	3	4	4
8915		HOLL	03	18	1509	N24	E54	03	22.8		A	HSX	160	3	2	3
8915		LEAR	03	19	0230	N25	E47	03	22.7		B	CSO	180	3	5	3
8915		TACH	03	19	0656	N24	E45	03	22.8			HHX	200	1	2	3
8915		SVTO	03	19	0708	N23	E46	03	22.8		A	HAX	100	3	3	3
8915		RAMY	03	19	1207	N22	E42	03	22.7		A	HSX	220	2	3	4
8915		HOLL	03	19	1634	N23	E40	03	22.8		A	HSX	180	2	3	4
8915		SVTO	03	19	1650	N23	E46	03	23.2		A	HAX	100	3	3	3
8915		LEAR	03	20	0036	N22	E36	03	22.8		A	HH	210	3	3	4
8915		TACH	03	20	0438	N22	E34	03	22.8			HHX	280	2	2	3
8915		RAMY	03	20	1317	N23	E30	03	22.9		A	HSX	210	2	3	3
8915		HOLL	03	20	1601	N23	E27	03	22.7		A	HSX	180	2	3	4
8915		SVTO	03	21	0600	N23	E21	03	22.9		A	HAX	160	2	3	3
8915		RAMY	03	21	1238	N21	E19	03	23.0		B	CSO	170	4	8	3
8915		HOLL	03	21	2010	N23	E13	03	22.8		A	HH	190	2	3	2
8915		LEAR	03	22	0104	N22	E12	03	23.0		A	DH	220	1	2	4
8915		TACH	03	22	0508	N23	E08	03	22.8			HHX	300	1	2	3
8915		SVTO	03	22	0807	N23	E07	03	22.9		A	HAX	220	2	3	3
8915		RAMY	03	22	1227	N23	E04	03	22.8		A	HSX	200	2	2	3
8915		HOLL	03	22	1500	N23	E03	03	22.8		A	HH	180	2	3	2
8915		LEAR	03	23	0410	N24	W03	03	22.9		A	HSX	150	1	3	2
8915		TACH	03	23	0545	N21	W03	03	23.0			CAI	251	2	2	4
8915		SVTO	03	23	0616	N23	W04	03	22.9		A	HAX	110	1	3	3
8915		RAMY	03	23	1350	N23	W08	03	23.0		A	HSX	160	1	3	2
8915		HOLL	03	23	1520	N23	W12	03	22.7		A	HSX	150	1	3	3
8915		TACH	03	24	0522	N23	W16	03	23.0			HHX	300	1	2	4
8915		SVTO	03	24	0630	N24	W17	03	22.9		A	HSX	120	1	3	3
8915		LEAR	03	24	0713	N23	W18	03	22.9		A	HH	240	1	3	2
8915		RAMY	03	24	1346	N23	W22	03	22.9		A	HSX	200	1	3	4
8915		HOLL	03	24	1537	N23	W24	03	22.8		A	HSX	140	2	3	2
8915		SVTO	03	25	0835	N23	W33	03	22.8		A	HSX	100	4	3	3
8915		RAMY	03	25	1234	N22	W35	03	22.8		A	HSX	140	1	2	3
8915		HOLL	03	25	1617	N23	W37	03	22.8		A	HSX	140	1	3	3
8915		LEAR	03	26	0350	N23	W41	03	23.0		A	HSX	120	1	2	2
8915		RAMY	03	26	1216	N23	W47	03	22.9		A	HSX	140	1	2	3
8915		HOLL	03	26	1608	N23	W48	03	23.0		A	HSX	170	1	3	3
8915		LEAR	03	27	0104	N22	W52	03	23.0		A	HSX	70	1	2	2
8915		SVTO	03	27	1025	N23	W58	03	23.0		A	HSX	180	1	4	3
8915		RAMY	03	27	1218	N22	W59	03	23.0		A	HSX	170	1	2	3
8915		HOLL	03	27	1500	N23	W61	03	22.9		A	HSX	220	1	2	3
8915		LEAR	03	28	0054	N22	W63	03	23.2		A	HSX	200	1	2	4
8915		SVTO	03	28	1015	N23	W75	03	22.6		A	HSX	90	1	3	3
8915A	29632	MWIL	03	16	1600	N24	E80	03	22.8	4	AP					

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8915A	29632	MWIL	03	17	2000	N22	E64	03	22.7	5	(AP)					
8915A	29635	MWIL	03	18	1500	N18	E60	03	23.2	3	(AP)					
8915A	29632	MWIL	03	18	1500	N22	E55	03	22.8	5	(BP)					
8915A	29635	MWIL	03	19	1500	N17	E47	03	23.2	3	(AP)					
8915A	29632	MWIL	03	19	1500	N23	E41	03	22.8	5	(AP)					
8915A		HOLL	03	19	1634	N17	E46	03	23.2		A	AXX		1		4
8915A		KAND	03	20	0900	N22	E31	03	22.7			HAX		2	3	4
8915A	29632	MWIL	03	20	1530	N23	E28	03	22.8	5	(AP)					
8915A		HOLL	03	20	1601	N17	E34	03	23.2		A	AXX		2	2	4
8915A		KAND	03	21	1110	N17	E23	03	23.2			AXX		2	1	2
8915A		KAND	03	21	1110	N23	E18	03	22.8			HSX		3	2	2
8915A	29632	MWIL	03	21	1615	N23	E15	03	22.8	5	(AP)					
8915A		KAND	03	22	0930	N23	E06	03	22.8			HAX		1	2	3
8915A	29632	MWIL	03	22	1500	N23	E03	03	22.8	5	(AP)					
8915A		KAND	03	23	0705	N23	W05	03	22.9			HSX		1	3	3
8915A	29632	MWIL	03	23	1515	N23	W10	03	22.9	5	(AP)					
8915A		KAND	03	24	0735	N24	W19	03	22.8			HAX		1	3	5
8915A	29632	MWIL	03	24	1715	N23	W23	03	22.9	5	(AP)					
8915A		KAND	03	25	1110	N22	W34	03	22.8			HSX		1	3	3
8915A	29632	MWIL	03	25	1515	N23	W35	03	22.9	5	(AP)					
8915A		KAND	03	26	0755	N23	W45	03	22.9			HSX		1	2	3
8915A	29632	MWIL	03	26	1500	N23	W48	03	22.9	5	(AP)					
8915A		KAND	03	27	0825	N23	W60	03	22.7			HH		1	3	3
8915A		KAND	03	28	0645	N22	W70	03	22.9			HSX		1	3	3
8915A	29632	MWIL	03	28	1515	N23	W73	03	23.0	4	(AP)					
8916		RAMY	03	17	1225	N11	E80	03	23.5		A	HAX	50	1	2	4
8916		HOLL	03	17	1528	N13	E79	03	23.6		A	HSX	120	1	1	4
8916	29633	MWIL	03	17	2000	N12	E78	03	23.7	4	(AP)					
8916		LEAR	03	18	0534	N14	E70	03	23.5		B	CSO	180	7	3	2
8916		SVTO	03	18	0555	N13	E70	03	23.5		B	CSO	170	2	6	3
8916		TACH	03	18	0818	N11	E73	03	23.8			HSX	180	2	2	2
8916		RAMY	03	18	1213	N13	E74	03	24.1		BG	FKO	420	8	18	4
8916	29633	MWIL	03	18	1500	N12	E69	03	23.8	5	(B)					
8916		HOLL	03	18	1509	N13	E69	03	23.8		B	DAO	210	7	10	3
8916		LEAR	03	19	0230	N16	E63	03	23.9		B	DSO	430	10	10	3
8916		TACH	03	19	0656	N14	E58	03	23.7			HSX	115	7	3	3
8916		SVTO	03	19	0708	N13	E61	03	23.9		B	DAO	150	6	5	3
8916		RAMY	03	19	1207	N13	E58	03	23.9		B	DSO	250	14	9	4
8916	29633	MWIL	03	19	1500	N12	E56	03	23.8	5	(B)					
8916		HOLL	03	19	1634	N13	E54	03	23.8		B	CAO	210	14	10	4
8916		SVTO	03	19	1650	N13	E61	03	24.3		B	DAO	150	6	5	3
8916		LEAR	03	20	0036	N13	E53	03	24.0		B	CHO	230	21	11	4
8916		TACH	03	20	0438	N12	E51	03	24.0			CAI	351	5	8	3
8916		KAND	03	20	0900	N12	E46	03	23.8			DAO		9	10	4
8916		RAMY	03	20	1317	N13	E46	03	24.0		B	ESO	270	15	11	3
8916	29633	MWIL	03	20	1530	N12	E42	03	23.8	5	(BP)					
8916		HOLL	03	20	1601	N12	E42	03	23.8		B	ESO	250	12	11	4
8916		SVTO	03	21	0600	N13	E36	03	24.0		B	DAO	330	11	10	3
8916		KAND	03	21	1110	N13	E34	03	24.0			CSO		13	10	2
8916		RAMY	03	21	1238	N13	E32	03	23.9		B	DSO	270	9	9	3
8916	29633	MWIL	03	21	1615	N12	E29	03	23.9	5	(BP)					
8916		HOLL	03	21	2010	N13	E28	03	23.9		B	DSO	180	12	10	2
8916		LEAR	03	22	0104	N11	E27	03	24.1		B	EHI	260	10	10	4
8916		TACH	03	22	0508	N12	E24	03	24.0			CAI	396	12	10	3
8916		SVTO	03	22	0807	N12	E23	03	24.1		B	EAO	190	11	12	3
8916		KAND	03	22	0930	N11	E21	03	24.0			EAO		9	12	3
8916		RAMY	03	22	1227	N12	E20	03	24.0		B	CSO	260	17	12	3
8916	29633	MWIL	03	22	1500	N12	E17	03	23.9	5	(BP)					
8916		HOLL	03	22	1500	N14	E17	03	23.9		B	ESO	230	17	12	2
8916		LEAR	03	23	0410	N12	E12	03	24.1		B	CSO	190	11	9	2
8916		SVTO	03	23	0616	N13	E10	03	24.0		B	EAO	190	11	11	3
8916		KAND	03	23	0705	N12	E09	03	24.0			CAO		4	8	5
8916		RAMY	03	23	1350	N12	E07	03	24.1		B	EAO	160	13	12	2
8916	29633	MWIL	03	23	1515	N12	E03	03	23.9	5	(BP)					
8916		HOLL	03	23	1520	N14	E04	03	23.9		B	CAO	180	10	9	3
8916		TACH	03	24	0522	N13	W03	03	24.0			CAI	366	13	5	4
8916		SVTO	03	24	0630	N12	W04	03	24.0		B	DAO	120	11	9	3
8916		LEAR	03	24	0713	N13	W07	03	23.8		B	DSO	130	7	4	2

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8916		KAND	03 24 0735	N13 W07	03 23.8			DSO		10	5	5
8916		RAMY	03 24 1346	N12 W08	03 24.0		B	DAO	180	11	9	4
8916		HOLL	03 24 1537	N13 W09	03 24.0		B	CSO	120	8	8	2
8916	29633	MWIL	03 24 1715	N12 W13	03 23.7	5	(BP)					
8916		SVTO	03 25 0835	N12 W21	03 23.8		B	DAO	110	5	4	3
8916		KAND	03 25 1110	N12 W23	03 23.7			DSI		10	5	3
8916		RAMY	03 25 1234	N11 W21	03 23.9		B	DSO	130	12	10	3
8916	29633	MWIL	03 25 1515	N12 W24	03 23.8	5	(BP)					
8916		HOLL	03 25 1617	N13 W22	03 24.0		B	CSO	100	10	10	3
8916		LEAR	03 26 0350	N12 W31	03 23.8		B	DSO	110	5	5	2
8916		KAND	03 26 0755	N12 W35	03 23.7			HSX		3	4	3
8916		RAMY	03 26 1216	N13 W37	03 23.7		B	DSO	140	4	4	3
8916	29633	MWIL	03 26 1500	N12 W38	03 23.8	5	(AP)					
8916		HOLL	03 26 1608	N13 W38	03 23.8		B	DSO	160	6	4	3
8916		LEAR	03 27 0104	N15 W42	03 23.9		B	DSO	150	10	6	2
8916		KAND	03 27 0825	N12 W49	03 23.6			HSX		2	3	3
8916		SVTO	03 27 1025	N13 W50	03 23.7		B	DAO	140	7	6	3
8916		RAMY	03 27 1218	N12 W50	03 23.7		B	DSO	100	5	3	3
8916		HOLL	03 27 1500	N13 W52	03 23.7		B	CSO	150	2	4	3
8916		LEAR	03 28 0054	N12 W55	03 23.9		B	DSO	100	2	3	4
8916		KAND	03 28 0645	N12 W61	03 23.7			HSX		2	3	3
8916		SVTO	03 28 1015	N15 W63	03 23.6		B	DAO	170	6	7	3
8916	29633	MWIL	03 28 1515	N13 W64	03 23.8	5	(AP)					
8916		KAND	03 29 0820	N13 W76	03 23.6			HSX		1	2	3
8916		SVTO	03 29 0930	N12 W79	03 23.4		A	HAX	60	1	3	3
8916		RAMY	03 29 1300	N12 W76	03 23.8		A	HSX	60	1	3	4
8916		HOLL	03 29 1417	N13 W78	03 23.7		A	HSX	60	1	2	2
8927	29636	MWIL	03 18 1500	N16 E70	03 23.9	3	(AP)					
8927	29636	MWIL	03 19 1500	N16 E56	03 23.9	3	(BP)					
8927	29642	MWIL	03 22 1500	N17 E17	03 23.9	4	(BP)					
8927		LEAR	03 23 0410	N19 E12	03 24.1		B	CSO	30	3	3	2
8927		TACH	03 23 0545	N15 E08	03 23.8			CAI	323	7	5	4
8927		TACH	03 23 0545	N19 E09	03 23.9			CRO	57	5	3	4
8927		SVTO	03 23 0616	N17 E08	03 23.9		B	DAO	30	9	7	3
8927		KAND	03 23 0705	N13 E12	03 24.2			AXX		1		3
8927		KAND	03 23 0705	N17 E09	03 24.0			DAO		9	3	3
8927		RAMY	03 23 1350	N18 E04	03 23.9		B	DAO	50	6	6	2
8927	29642	MWIL	03 23 1515	N17 E04	03 23.9	5	(BG)					
8927		HOLL	03 23 1520	N17 E07	03 24.2		B	CAO	50	9	10	3
8927		TACH	03 24 0522	N17 W04	03 23.9			DAI	139	8	4	4
8927		SVTO	03 24 0630	N16 W05	03 23.9		B	DAO	50	6	6	3
8927		LEAR	03 24 0713	N17 W05	03 23.9		B	DSO	90	7	6	2
8927		KAND	03 24 0735	N18 W06	03 23.8			DSO		11	7	5
8927		RAMY	03 24 1346	N17 W08	03 24.0		B	DSO	70	11	8	4
8927		HOLL	03 24 1537	N17 W10	03 23.9		B	CSO	50	13	8	2
8927	29642	MWIL	03 24 1715	N17 W10	03 23.9	4	(BG)					
8927		SVTO	03 25 0835	N16 W20	03 23.8		B	DAO	40	11	8	3
8927		KAND	03 25 1110	N16 W23	03 23.7			CSI		16	9	3
8927		RAMY	03 25 1234	N16 W22	03 23.8		B	CSO	40	19	9	3
8927	29642	MWIL	03 25 1515	N17 W25	03 23.7	4	(B)					
8927		HOLL	03 25 1617	N17 W25	03 23.8		B	CAO	50	12	8	3
8927		LEAR	03 26 0350	N17 W29	03 23.9		B	DSO	60	9	7	2
8927		KAND	03 26 0755	N16 W35	03 23.7			CSO		8	9	3
8927		RAMY	03 26 1216	N16 W36	03 23.8		B	CSO	100	16	10	3
8927	29642	MWIL	03 26 1500	N17 W37	03 23.8	5	(BG)					
8927		HOLL	03 26 1608	N17 W37	03 23.9		B	DSO	210	22	10	3
8927		LEAR	03 27 0104	N17 W38	03 24.1		B	DSO	50	3	3	2
8927		KAND	03 27 0825	N16 W48	03 23.7			CAO		10	12	3
8927		SVTO	03 27 1025	N18 W44	03 24.1		B	DRO	30	6	4	3
8927		RAMY	03 27 1218	N17 W47	03 23.9		B	ESO	80	20	11	3
8927		HOLL	03 27 1500	N16 W48	03 24.0		B	CSO	120	14	11	3
8927		LEAR	03 28 0054	N17 W54	03 23.9		B	DSO	70	19	7	4
8927		KAND	03 28 0645	N15 W61	03 23.7			CSO		6	6	3
8927		SVTO	03 28 1015	N18 W59	03 23.9		B	DAO	30	2	6	3
8927	29642	MWIL	03 28 1515	N17 W63	03 23.8	4	(B)					
8927		KAND	03 29 0820	N16 W76	03 23.6			HSX		3	6	3
8927		SVTO	03 29 0930	N15 W74	03 23.8		B	BXO		2	4	3
8927	29642	MWIL	03 29 1515	N12 W77	03 23.8	4	(AP)					

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8927	29632A	MWIL	03	29	1515	N16	W77	03	23.8	4	(B)					
8919		RAMY	03	19	1207	S21	E62	03	24.2		B	BXO		3	5	4
8919	29638	MWIL	03	19	1500	S21	E61	03	24.3	4	(BP)					
8919		HOLL	03	19	1634	S22	E63	03	24.5		B	BXO		2	3	4
8919		RAMY	03	21	1238	S21	E36	03	24.3		A	AXX		2	1	3
8919A		KAND	03	25	1110	N09	W13	03	24.5			BXO		3	6	3
8919A	29652	MWIL	03	25	1515	N08	W14	03	24.6	4	(B)					
8919A		HOLL	03	25	1617	N08	W13	03	24.7		B	BXO		2	3	3
8919B	29645	MWIL	03	23	1515	N20	E11	03	24.5	4	(AF)					
8920		LEAR	03	20	0036	N24	E68	03	25.3		A	AXX		1		4
8920		TACH	03	20	0438	N24	E63	03	25.1			AXX	15	1	1	3
8920		RAMY	03	20	1317	N24	E59	03	25.1		A	AXX	10	1		3
8920	29639	MWIL	03	20	1530	N23	E58	03	25.1	4	(AP)					
8920		HOLL	03	20	1601	N23	E59	03	25.2		B	BXO	10	2	3	4
8920		SVTO	03	21	0600	N24	E48	03	24.9		A	AXX		1		3
8920		RAMY	03	21	1238	N24	E46	03	25.1		A	AXX		1		3
8920		SVTO	03	22	0807	N24	E38	03	25.3		B	CAO	30	6	7	3
8920		KAND	03	22	0930	N23	E35	03	25.1			RXO		4	3	3
8920		RAMY	03	22	1227	N25	E35	03	25.2		B	BXO	10	4	6	3
8920	29639	MWIL	03	22	1500	N24	E33	03	25.2	4	(BP)					
8920		HOLL	03	22	1500	N24	E34	03	25.2		B	BXO	10	3	6	2
8920		LEAR	03	23	0410	N22	E25	03	25.1		B	CSO	20	3	2	2
8920		TACH	03	23	0545	N25	E26	03	25.2			BRO	16	3	4	4
8920		SVTO	03	23	0616	N23	E25	03	25.2		B	DAO	40	5	6	3
8920		KAND	03	23	0705	N24	E23	03	25.1			BXO		3	3	3
8920		RAMY	03	23	1350	N23	E22	03	25.3		B	CSO	20	8	7	2
8920	29639	MWIL	03	23	1515	N23	E20	03	25.2	4	(BG)					
8920		HOLL	03	23	1520	N24	E20	03	25.2		B	BXO	20	9	8	3
8920		TACH	03	24	0522	N22	E12	03	25.1			AXX	1	4	1	4
8920		SVTO	03	24	0630	N24	E12	03	25.2		B	CRO	10	2	3	3
8920A		KAND	03	31	0725	S10	W72	03	25.9			AXX		1		3
8923		LEAR	03	22	0104	S28	E54	03	26.3		B	BXO	20	2	1	4
8923		TACH	03	22	0508	S26	E54	03	26.4			AAI	465	3	5	3
8923		SVTO	03	22	0807	S27	E53	03	26.5		B	CRO	20	3	4	3
8923		RAMY	03	22	1227	S25	E47	03	26.1		B	BXO	10	5	4	3
8923		HOLL	03	22	1500	S26	E48	03	26.3		B	BXO	20	3	4	2
8923	29643	MWIL	03	22	1500	S26	E48	03	26.3	4	(B)					
8923		LEAR	03	23	0410	S28	E41	03	26.4		B	BXO	10	3	5	2
8923		TACH	03	23	0545	S25	E40	03	26.3			BRO	16	2	4	4
8923		SVTO	03	23	0616	S26	E41	03	26.4		A	HRX	10	3	5	3
8923		KAND	03	23	0705	S26	E40	03	26.4			BXO		3	6	3
8923		RAMY	03	23	1350	S26	E37	03	26.4		B	CSO	20	2	5	2
8923	29643	MWIL	03	23	1515	S26	E36	03	26.4	5	(BP)					
8923		HOLL	03	23	1520	S26	E37	03	26.5		B	CSO	20	2	6	3
8923		TACH	03	24	0522	S25	E28	03	26.4			BRO	27	3	6	4
8923		SVTO	03	24	0630	S26	E28	03	26.4		B	DAO	20	2	6	3
8923		LEAR	03	24	0713	S26	E24	03	26.2		A	HSX	20	1	1	2
8923		KAND	03	24	0735	S26	E26	03	26.3			BXO		4	6	5
8923		RAMY	03	24	1346	S26	E23	03	26.4		B	CSO	30	2	6	4
8923		HOLL	03	24	1537	S26	E24	03	26.5		B	CAO	20	3	6	2
8923	29643	MWIL	03	24	1715	S26	E21	03	26.3	3	(BP)					
8923		SVTO	03	25	0835	S28	E13	03	26.4		B	CAO	10	2	6	3
8923		KAND	03	25	1110	S26	E11	03	26.3			BXO		3	7	3
8923		RAMY	03	25	1234	S27	E11	03	26.4		B	BXO		3	6	3
8923	29643	MWIL	03	25	1515	S27	E09	03	26.3	4	(B)					
8923		HOLL	03	25	1617	S26	E10	03	26.4		B	CAO	20	2	7	3
8923		LEAR	03	26	0350	S27	W03	03	25.9		B	CSO	20	5	5	2
8923		RAMY	03	26	1216	S26	W06	03	26.0		A	AXX		1		3
8923	29643	MWIL	03	26	1500	S27	W06	03	26.1	4	(BP)					
8923		HOLL	03	26	1608	S26	W07	03	26.1		A	AXX	10	1	1	3
8923		LEAR	03	27	0104	S26	W12	03	26.1		A	AXX		1	1	2
8922		HOLL	03	20	1601	N14	E75	03	26.3		A	AXX	10	2	2	4

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8922		SVTO	03	21	0600	N14	E67	03	26.3		A	AXX	10	1	1	3
8922		KAND	03	21	1110	N15	E65	03	26.4			AXX		1		2
8922		RAMY	03	21	1238	N15	E62	03	26.2		B	CRO	20	3	5	3
8922	29640	MWIL	03	21	1615	N15	E62	03	26.4	4	(AF)					
8922		HOLL	03	21	2010	N13	E58	03	26.2		B	BXO	20	2	4	2
8922		LEAR	03	22	0104	N12	E56	03	26.3		B	CSO	40	3	2	4
8922		TACH	03	22	0508	N14	E55	03	26.4			HRX	29	5	2	3
8922		SVTO	03	22	0807	N13	E52	03	26.3		B	CAO	20	4	2	3
8922		KAND	03	22	0930	N14	E53	03	26.4			AXX		1		3
8922		RAMY	03	22	1227	N15	E50	03	26.3		A	AXX		3	1	3
8922		HOLL	03	22	1500	N14	E49	03	26.3		A	AXX	10	2	1	2
8922	29640	MWIL	03	22	1500	N14	E50	03	26.4	4	(AP)					
8922		SVTO	03	23	0616	N13	E42	03	26.4		A	HRX	10	3	2	3
8922		KAND	03	23	0705	N14	E42	03	26.5			AXX		2	2	3
8922		RAMY	03	23	1350	N13	E37	03	26.4		A	AXX		3	2	2
8922	29640	MWIL	03	23	1515	N14	E36	03	26.3	3	(AF)					
8922		HOLL	03	23	1520	N15	E36	03	26.4		A	AXX		1		3
8922		RAMY	03	24	1346	N12	E22	03	26.2		A	AXX		1		4
8922		SVTO	03	29	0930	N16	W38	03	26.5		A	HRX	10	2	1	3
8922		HOLL	03	29	1417	N17	W39	03	26.6		A	AXX	10	1		2
8922	29660	MWIL	03	29	1515	N16	W40	03	26.6	4	(AF)					
8921		RAMY	03	20	1317	S15	E77	03	26.4		B	BXO	10	2	3	3
8921		HOLL	03	20	1601	S15	E74	03	26.3		B	CSO	30	2	4	4
8921		SVTO	03	21	0600	S16	E69	03	26.5		B	CAO	60	3	6	3
8921		KAND	03	21	1110	S14	E69	03	26.7			CSO		7	4	2
8921		RAMY	03	21	1238	S16	E66	03	26.5		B	DAO	100	8	6	3
8921	29641	MWIL	03	21	1615	S16	E64	03	26.5	4	(B)					
8921		HOLL	03	21	2010	S16	E64	03	26.7		B	DAO	250	12	9	2
8921		LEAR	03	22	0104	S17	E58	03	26.4		B	DSO	320	13	6	4
8921		TACH	03	22	0508	S16	E59	03	26.7			DRX	4	13	2	3
8921		SVTO	03	22	0807	S18	E57	03	26.7		B	DAI	340	14	10	3
8921		KAND	03	22	0930	S17	E56	03	26.6			DKO		12	10	3
8921		RAMY	03	22	1227	S16	E54	03	26.6		B	EAI	400	13	11	3
8921	29641	MWIL	03	22	1500	S17	E52	03	26.6	5	(B)					
8921		HOLL	03	22	1500	S17	E53	03	26.6		B	DHO	450	17	10	2
8921		LEAR	03	23	0410	S19	E46	03	26.7		B	DAO	200	13	9	2
8921		TACH	03	23	0545	S17	E45	03	26.6			DAI	546	9	6	4
8921		SVTO	03	23	0616	S18	E45	03	26.7		B	EKI	480	12	11	3
8921		KAND	03	23	0705	S17	E44	03	26.6			DKI		14	9	3
8921		RAMY	03	23	1350	S17	E41	03	26.7		B	DKI	430	14	9	2
8921	29641	MWIL	03	23	1515	S18	E40	03	26.7	5	(B)					
8921		HOLL	03	23	1520	S17	E42	03	26.8		B	DKI	220	28	10	3
8921		TACH	03	24	0522	S17	E33	03	26.7			DAI	559	27	6	4
8921		SVTO	03	24	0630	S18	E32	03	26.7		B	EKI	430	21	11	3
8921		LEAR	03	24	0713	S17	E32	03	26.7		BG	DKI	500	19	10	2
8921		KAND	03	24	0735	S17	E30	03	26.6			DAI		41	10	5
8921		RAMY	03	24	1346	S17	E27	03	26.6		B	DAC	440	34	8	4
8921		HOLL	03	24	1537	S17	E28	03	26.8		B	EKC	310	23	11	2
8921	29641	MWIL	03	24	1715	S18	E26	03	26.7	5	(B)					
8921		SVTO	03	25	0835	S18	E17	03	26.6		B	EAI	230	21	13	3
8921		KAND	03	25	1110	S17	E16	03	26.7			DKO		35	9	3
8921		RAMY	03	25	1234	S18	E15	03	26.7		BG	DAI	280	33	10	3
8921	29641	MWIL	03	25	1515	S18	E13	03	26.6	5	(BP)					
8921		HOLL	03	25	1617	S17	E14	03	26.7		BG	DAI	220	27	10	3
8921		LEAR	03	26	0350	S18	E08	03	26.8		B	DAI	220	32	10	2
8921		KAND	03	26	0755	S17	E05	03	26.7			DAO		17	10	3
8921		RAMY	03	26	1216	S16	E02	03	26.7		B	DSI	220	25	9	3
8921	29641	MWIL	03	26	1500	S17	E00	03	26.6	5	(B)					
8921		HOLL	03	26	1608	S17	E01	03	26.7		BG	EAI	320	30	11	3
8921		LEAR	03	27	0104	S18	W05	03	26.7		B	DSO	120	19	10	2
8921		KAND	03	27	0825	S18	W10	03	26.6			DAO		16	10	3
8921		SVTO	03	27	1025	S18	W10	03	26.7		B	DAI	110	14	10	3
8921		RAMY	03	27	1218	S18	W11	03	26.7		B	DAI	110	22	10	3
8921		HOLL	03	27	1500	S17	W12	03	26.7		BG	DAI	190	26	10	3
8921		LEAR	03	28	0054	S17	W17	03	26.7		B	DAI	110	33	9	4
8921		KAND	03	28	0645	S18	W20	03	26.7			DAO		25	10	3
8921		SVTO	03	28	1015	S17	W24	03	26.6		B	DAI	180	14	10	3
8921	29641	MWIL	03	28	1515	S17	W26	03	26.6	4	(BP)					

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8921		KAND	03	29	0820	S17	W36	03	26.6			DSO		10	9	3
8921		SVTO	03	29	0930	S17	W36	03	26.7		B	EAO	60	13	11	3
8921		RAMY	03	29	1300	S16	W38	03	26.6		B	DSO	40	10	9	4
8921		HOLL	03	29	1417	S17	W39	03	26.6		B	DSO	20	5	9	2
8921	29641	MWIL	03	29	1515	S17	W40	03	26.6	4	(BP)					
8921		LEAR	03	30	0057	S17	W44	03	26.7		B	CSO	10	5	10	3
8921		TACH	03	30	0630	S17	W43	03	27.0			AXX	25	1	1	3
8921		SVTO	03	30	0828	S18	W49	03	26.6		B	CRO	20	5	9	4
8921		KAND	03	30	0925	S19	W45	03	26.9			HSX		3	1	5
8921		RAMY	03	30	1205	S17	W48	03	26.8		A	AXX	10	1		4
8921	29641	MWIL	03	30	1500	S17	W50	03	26.8	3	(AF)					
8921		KAND	04	02	1150	S19	W88	03	26.9			AXX		1	1	4
8921A		KAND	03	26	0755	N24	E19	03	27.8			AXX		1	1	3
8921A		RAMY	03	26	1216	N25	E16	03	27.7		A	AXX		1		3
8921A	29654	MWIL	03	26	1500	N23	E14	03	27.7	4	(AP)					
8921A		HOLL	03	26	1608	N23	E13	03	27.7		B	BXO	10	2	4	3
8924		LEAR	03	23	0410	N09	E75	03	28.8		A	HSX	60	1	3	2
8924		VORO	03	23	0421	N11	E75	03	28.8			HAX	279	1		3
8924		TACH	03	23	0545	N12	E74	03	28.8			HSX	50	1	2	4
8924		SVTO	03	23	0616	N12	E79	03	29.2		A	HAX	120	1	3	3
8924		KAND	03	23	0705	N11	E77	03	29.1			HSX		1	2	3
8924		RAMY	03	23	1350	N12	E75	03	29.2		B	CSO	70	2	9	2
8924	29646	MWIL	03	23	1515	N11	E71	03	29.0	5	(AP)					
8924		HOLL	03	23	1520	N14	E75	03	29.3		B	CAO	120	6	13	3
8924		TACH	03	24	0522	N11	E64	03	29.0			HSX	140	3	2	4
8924		SVTO	03	24	0630	N11	E63	03	29.0		A	HAX	140	1	3	3
8924		LEAR	03	24	0713	N11	E61	03	28.9		A	HSX	120	2	3	2
8924		KAND	03	24	0735	N11	E61	03	28.9			HAX		2	2	5
8924		RAMY	03	24	1346	N12	E62	03	29.2		B	CSO	150	3	10	4
8924		HOLL	03	24	1537	N13	E59	03	29.1		B	CAO	140	6	11	2
8924	29646	MWIL	03	24	1715	N11	E58	03	29.1	5	(BP)					
8924		VORO	03	24	2307	N11	E54	03	29.0			HAX	308	6		3
8924		SVTO	03	25	0835	N09	E48	03	29.0		B	CAO	80	3	5	3
8924		KAND	03	25	1110	N10	E47	03	29.0			DAO		10	5	3
8924		RAMY	03	25	1234	N11	E48	03	29.1		B	DAO	150	19	9	3
8924	29646	MWIL	03	25	1515	N10	E45	03	29.0	5	(BG)					
8924		HOLL	03	25	1617	N11	E45	03	29.1		B	DAO	140	15	7	3
8924		VORO	03	26	0053	N10	E39	03	29.0			HAX	324	9	5	3
8924		LEAR	03	26	0350	N09	E38	03	29.0		B	DAI	140	21	5	2
8924		KAND	03	26	0755	N11	E35	03	29.0			DAO		9	7	3
8924		RAMY	03	26	1216	N11	E32	03	28.9		B	DAI	210	15	6	3
8924	29646	MWIL	03	26	1500	N10	E30	03	28.9	5	(BG)					
8924		HOLL	03	26	1608	N10	E31	03	29.0		B	DAO	230	35	10	3
8924		VORO	03	26	2235	N10	E27	03	29.0			DAI	216	16	7	2
8924		LEAR	03	27	0104	N10	E25	03	28.9		B	DSI	150	20	8	2
8924		KAND	03	27	0825	N10	E20	03	28.8			DAO		16	8	3
8924		SVTO	03	27	1025	N10	E20	03	28.9		B	DAO	120	17	10	3
8924		RAMY	03	27	1218	N10	E18	03	28.9		B	DAC	240	24	8	3
8924		HOLL	03	27	1500	N10	E17	03	28.9		B	DAO	370	27	8	3
8924		LEAR	03	28	0054	N10	E12	03	28.9		B	DAI	260	35	8	4
8924		KAND	03	28	0645	N10	E09	03	28.9			DKI		46	9	3
8924		SVTO	03	28	1015	N11	E05	03	28.8		B	DAI	340	18	8	3
8924	29646	MWIL	03	28	1515	N10	E03	03	28.9	5	(D)					
8924		KAND	03	29	0820	N10	W07	03	28.8			DKC		24	9	3
8924		SVTO	03	29	0930	N10	W07	03	28.9		B	EKO	310	16	12	3
8924		RAMY	03	29	1300	N11	W07	03	29.0		B	EAC	400	20	11	4
8924		HOLL	03	29	1417	N10	W11	03	28.8		B	DAO	260	17	8	2
8924	29646	MWIL	03	29	1515	N10	W10	03	28.9	5	(D)					
8924		VORO	03	29	2150	N10	W15	03	28.8			DAI	416	9	7	2
8924		LEAR	03	30	0057	N11	W15	03	28.9		BG	DKI	270	17	8	3
8924		TACH	03	30	0630	N12	W19	03	28.8			DAI	742	10	5	3
8924		SVTO	03	30	0828	N10	W20	03	28.8		B	DKO	400	14	10	4
8924		KAND	03	30	0925	N10	W21	03	28.8			DKO		20	8	5
8924		RAMY	03	30	1205	N11	W22	03	28.8		B	DKI	260	16	9	4
8924	29646	MWIL	03	30	1500	N10	W25	03	28.7	5	(D)					
8924		HOLL	03	30	1630	N09	W25	03	28.8		B	DAO	260	19	9	3
8924		VORO	03	31	0205	N10	W29	03	28.9			DAI	337	7	8	2

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8924		TACH	03 31 0522	N10 W31	03 28.9			DAI	422	23	7	4
8924		KAND	03 31 0725	N10 W34	03 28.7			DAO		9	9	3
8924		SVTO	03 31 1129	N10 W36	03 28.8		B	DAO	280	18	10	3
8924		RAMY	03 31 1227	N10 W37	03 28.7		BGD	DKI	290	24	8	3
8924		HOLL	03 31 1837	N09 W39	03 28.8		BGD	DKC	310	11	8	2
8924	29646	MWIL	03 31 2000	N10 W39	03 28.9	5	(D)					
8924		VORO	04 01 0051	N11 W43	03 28.9			DAI	418	7	7	2
8924		LEAR	04 01 0200	N10 W42	03 29.0		BG	DKO	240	22	9	3
8924		SVTO	04 01 0810	N11 W47	03 28.9		B	DAO	330	8	8	2
8924		KAND	04 01 1220	N10 W50	03 28.8			DKO		13	9	2
8924		RAMY	04 01 1310	N11 W50	03 28.9		BD	DKI	350	11	8	4
8924		HOLL	04 01 1455	N10 W51	03 28.9		BGD	DSI	460	15	9	3
8924	29646	MWIL	04 01 2000	N10 W53	03 28.9	4	(D)					
8924		VORO	04 01 2149	N10 W56	03 28.8			DAI	350	10	6	2
8924		LEAR	04 02 0130	N11 W57	03 28.9		BG	DKO	290	16	9	3
8924		SVTO	04 02 0710	N12 W60	03 28.9		B	DAO	300	6	9	4
8924		KAND	04 02 1150	N12 W63	03 28.8			DKO		9	9	4
8924	29646	MWIL	04 02 1500	N11 W64	03 28.9	5	(BG)					
8924		HOLL	04 02 1530	N11 W64	03 28.9		BGD	DAI	400	13	9	3
8924		VORO	04 02 2313	N10 W70	03 28.8			DAO	419	2	7	1
8924		KAND	04 03 0615	N11 W76	03 28.6			EAO		9	13	4
8924		RAMY	04 03 1304	N12 W77	03 28.8		B	DAO	90	6	8	3
8924	29646	MWIL	04 03 1445	N11 W77	03 28.9	4	(D)					
8924		HOLL	04 03 1658	N11 W78	03 28.9		B	CSO	60	2	4	2
8928		VORO	03 23 2356	N19 E66	03 29.0			HAX	94	3		3
8928		TACH	03 24 0522	N20 E66	03 29.3			AXX	12	3	2	4
8928		SVTO	03 24 0630	N20 E70	03 29.6		B	CAO	30	2	9	3
8928		LEAR	03 24 0713	N19 E68	03 29.5		B	CRO	60	2	8	2
8928		KAND	03 24 0735	N18 E65	03 29.3			CRO		4	7	5
8928		RAMY	03 24 1346	N19 E65	03 29.5		B	CSO	80	2	8	4
8928		HOLL	03 24 1537	N19 E62	03 29.4		B	EAO	70	3	14	2
8928	29649	MWIL	03 24 1715	N19 E63	03 29.5	5	(B)					
8928		SVTO	03 25 0835	N18 E52	03 29.3		B	DAO	50	4	11	3
8928		KAND	03 25 1110	N17 E49	03 29.2			CSO		6	5	3
8928		RAMY	03 25 1234	N19 E51	03 29.4		B	CSO	50	10	10	3
8928	29649	MWIL	03 25 1515	N19 E50	03 29.4	4	(B)					
8928		HOLL	03 25 1617	N19 E49	03 29.4		B	EAO	60	8	13	3
8928		VORO	03 26 0053	N20 E46	03 29.5			HAX	74	3	10	3
8928		LEAR	03 26 0350	N18 E44	03 29.5		B	DAO	50	5	8	2
8928		KAND	03 26 0755	N20 E41	03 29.5			BXO		3	10	3
8928		RAMY	03 26 1216	N20 E38	03 29.4		B	CSO	60	8	11	3
8928	29649	MWIL	03 26 1500	N19 E37	03 29.4	5	(B)					
8928		HOLL	03 26 1608	N18 E37	03 29.5		B	CSO	70	10	12	3
8928		VORO	03 26 2235	N20 E33	03 29.5			CAO	49	3	10	2
8928		LEAR	03 27 0104	N18 E32	03 29.5		B	CSO	40	5	11	2
8928		KAND	03 27 0825	N18 E22	03 29.0			HSX		1	1	3
8928		RAMY	03 27 1218	N18 E21	03 29.1		A	HSX	30	1	1	3
8928		HOLL	03 27 1500	N18 E18	03 29.0		A	HSX	50	1	1	3
8928		LEAR	03 28 0054	N18 E14	03 29.1		A	HSX	40	1	1	4
8928		KAND	03 28 0645	N18 E10	03 29.0			HSX		1	2	3
8928		SVTO	03 28 1015	N18 E08	03 29.0		A	HSX	40	1	1	3
8928	29649	MWIL	03 28 1515	N19 E11	03 29.5	5	(BP)					
8928		KAND	03 29 0820	N19 W04	03 29.0			HSX		1	2	3
8928		SVTO	03 29 0930	N19 W06	03 28.9		A	HSX	20	1	1	3
8928		RAMY	03 29 1300	N19 W05	03 29.2		B	CSO	30	2	3	4
8928		HOLL	03 29 1417	N19 W08	03 29.0		A	HSX	20	1	1	2
8928	29649	MWIL	03 29 1515	N19 W08	03 29.0	5	(AP)					
8928		VORO	03 29 2150	N20 W12	03 29.0			HAX	36	1		2
8928		LEAR	03 30 0057	N19 W13	03 29.0		A	HSX	20	1	1	3
8928		TACH	03 30 0630	N20 W15	03 29.1			HSX	50	1	1	3
8928		SVTO	03 30 0828	N19 W17	03 29.0		A	HSX	20	1	1	4
8928		KAND	03 30 0925	N19 W17	03 29.1			HSX		1	1	5
8928		RAMY	03 30 1205	N21 W15	03 29.3		B	CSO	20	2	8	4
8928	29649	MWIL	03 30 1500	N19 W22	03 28.9	5	(AP)					
8928		HOLL	03 30 1630	N19 W23	03 28.9		A	HSX	20	1	1	3
8928		VORO	03 31 0205	N20 W27	03 29.0			HAX	37	1		2
8928		TACH	03 31 0522	N20 W28	03 29.1			ASX	50	1	1	4
8928		KAND	03 31 0725	N19 W31	03 28.9			HSX		1	1	3

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8928		SVTO	03	31	1129	N20	W33	03	28.9		A	HSX	10	1	1	3
8928		RAMY	03	31	1227	N19	W33	03	29.0		A	CRX	10	1	1	3
8928		HOLL	03	31	1837	N19	W37	03	28.9		A	HSX	10	1	1	2
8928	29649	MWIL	03	31	2000	N19	W36	03	29.1	4	(AP)					
8928		VORO	04	01	0051	N20	W40	03	29.1			AXX	15	1		2
8928		LEAR	04	01	0200	N20	W40	03	29.1		A	HSX	10	1	1	3
8928		SVTO	04	01	0810	N22	W44	03	29.0		A	HRX	20	1	1	2
8928		KAND	04	01	1220	N20	W46	03	29.1			AXX		1	1	2
8928		RAMY	04	01	1310	N21	W46	03	29.1		A	CRX	10	1	1	4
8928		HOLL	04	01	1455	N19	W48	03	29.0		A	AXX	10	1	1	3
8928	29649	MWIL	04	01	2000	N19	W49	03	29.2	4	(AP)					
8928		VORO	04	01	2149	N20	W51	03	29.1			AXX	8	1		2
8928		LEAR	04	02	0130	N21	W52	03	29.2		A	HSX	20	1	1	3
8928	29649	MWIL	04	02	1500	N20	W61	03	29.0	3	(AP)					
8925		VORO	03	23	0421	S18	E74	03	28.8			HAX	224	2		3
8925		RAMY	03	23	1350	S18	E80	03	29.7		A	HSX	30	1	4	2
8925	29648	MWIL	03	23	1515	S17	E80	03	29.7	4	(AP)					
8925		HOLL	03	23	1520	S16	E81	03	29.8		A	HAX	30	1	2	3
8925		TACH	03	24	0522	S18	E75	03	29.9			HSX	70	1	2	4
8925		TACH	03	24	0522	S19	E77	03	30.1			AXX	60	2	1	4
8925		SVTO	03	24	0630	S16	E71	03	29.6		B	CAO	110	2	8	3
8925		LEAR	03	24	0713	S18	E70	03	29.6		A	HSX	60	1	2	2
8925		KAND	03	24	0735	S17	E72	03	29.8			HSX		1	2	5
8925		RAMY	03	24	1346	S17	E68	03	29.7		B	CSO	90	2	3	4
8925		HOLL	03	24	1537	S16	E72	03	30.1		B	CAO	90	4	14	2
8925	29648	MWIL	03	24	1715	S18	E67	03	29.8	4	(AP)					
8925		SVTO	03	25	0835	S19	E57	03	29.7		B	DAO	70	4	7	3
8925		KAND	03	25	1110	S17	E54	03	29.6			CSO		9	7	3
8925		RAMY	03	25	1234	S18	E53	03	29.5		B	CSO	70	8	4	3
8925	29648	MWIL	03	25	1515	S18	E53	03	29.7	4	(BP)					
8925		HOLL	03	25	1617	S16	E58	03	30.1		B	CSO	100	12	7	3
8925		VORO	03	26	0053	S18	E47	03	29.6			HAX	286	7	5	3
8925		LEAR	03	26	0350	S19	E47	03	29.7		B	DSI	80	19	6	2
8925		KAND	03	26	0755	S17	E43	03	29.6			DAO		9	7	3
8925		RAMY	03	26	1216	S18	E40	03	29.5		B	DSI	170	13	7	3
8925	29648	MWIL	03	26	1500	S18	E39	03	29.6	5	(BG)					
8925		HOLL	03	26	1608	S17	E40	03	29.7		B	DAO	230	19	7	3
8925		VORO	03	26	2235	S18	E35	03	29.6			DAI	354	13	7	2
8925		LEAR	03	27	0104	S18	E33	03	29.5		B	DSO	180	14	9	2
8925		KAND	03	27	0825	S17	E29	03	29.5			DSI		13	10	3
8925		SVTO	03	27	1025	S18	E28	03	29.6		B	EKI	210	14	11	3
8925		RAMY	03	27	1218	S18	E26	03	29.5		B	DKC	280	23	9	3
8925		HOLL	03	27	1500	S17	E25	03	29.5		BG	DKI	370	28	9	3
8925		LEAR	03	28	0054	S17	E20	03	29.5		B	DKI	250	22	9	4
8925		LEAR	03	28	0054	S17	E28	03	30.2		B	BXO		2		4
8925		KAND	03	28	0645	S17	E16	03	29.5			DAC		22	10	3
8925		SVTO	03	28	1015	S18	E15	03	29.6		B	EKI	290	18	11	3
8925	29648	MWIL	03	28	1515	S18	E12	03	29.5	5	(D)					
8925		KAND	03	29	0820	S18	E02	03	29.5			EAI		16	11	3
8925		SVTO	03	29	0930	S17	E01	03	29.5		B	EAI	140	27	11	3
8925		RAMY	03	29	1300	S17	W02	03	29.4		B	DAI	240	27	10	4
8925		HOLL	03	29	1417	S17	W02	03	29.4		B	EAI	140	26	11	2
8925	29648	MWIL	03	29	1515	S18	W02	03	29.5	5	(D)					
8925		VORO	03	29	2150	S18	W07	03	29.4			DAI	165	11	10	2
8925		LEAR	03	30	0057	S18	W07	03	29.5		BG	EAI	110	20	11	3
8925		TACH	03	30	0630	S16	W09	03	29.6			DAI	178	10	8	3
8925		SVTO	03	30	0828	S17	W12	03	29.4		B	EAI	160	15	13	4
8925		KAND	03	30	0925	S17	W13	03	29.4			EAO		25	12	5
8925		RAMY	03	30	1205	S18	W15	03	29.4		BG	EAI	160	18	12	4
8925	29648	MWIL	03	30	1500	S18	W15	03	29.5	5	(BG)					
8925		HOLL	03	30	1630	S18	W15	03	29.5		BG	EAC	190	32	13	3
8925		VORO	03	31	0205	S19	W20	03	29.6			DAI	124	10	9	2
8925		TACH	03	31	0522	S18	W22	03	29.5			DAI	190	15	9	4
8925		KAND	03	31	0725	S18	W24	03	29.5			CSO		10	11	3
8925		SVTO	03	31	1129	S18	W27	03	29.4		B	FAO	100	17	16	3
8925		RAMY	03	31	1227	S18	W27	03	29.5		BG	ESO	40	15	11	3
8925		HOLL	03	31	1837	S20	W30	03	29.5		BG	EAO	60	14	13	2
8925	29648	MWIL	03	31	2000	S18	W30	03	29.5	4	(BG)					

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8925		VORO	04	01	0051	S17	W34	03	29.5			DAI	91	5	8	2
8925		LEAR	04	01	0200	S18	W33	03	29.7		BG	EAO	140	17	11	3
8925		SVTO	04	01	0810	S17	W37	03	29.6		B	FAO	40	9	17	2
8925		KAND	04	01	1220	S18	W41	03	29.5			CAO		7	9	2
8925		RAMY	04	01	1310	S17	W40	03	29.6		BG	DAO	40	9	10	4
8925		HOLL	04	01	1455	S18	W39	03	29.7		BG	EAO	90	8	13	3
8925	29648	MWIL	04	01	2000	S19	W42	03	29.7	4	(BG)					
8925		VORO	04	01	2149	S17	W46	03	29.5			DAI	74	4	9	2
8925		LEAR	04	02	0130	S18	W44	03	29.8		B	DAO	50	6	5	3
8925		SVTO	04	02	0710	S18	W47	03	29.8		B	BXO	40	3	3	4
8925		KAND	04	02	1150	S18	W53	03	29.5			CSO		6	10	4
8925	29648	MWIL	04	02	1500	S19	W52	03	29.7	4	(BG)					
8925		HOLL	04	02	1530	S18	W52	03	29.8		B	DAO	40	4	4	3
8925		VORO	04	02	2313	S19	W58	03	29.6			AXX	19	1		1
8925		KAND	04	03	0615	S19	W61	03	29.7			HSX		1	2	4
8925		RAMY	04	03	1304	S19	W65	03	29.7		A	HSX	10	1	1	3
8925	29648	MWIL	04	03	1445	S15	W68	03	29.6	4	(BF)					
8925		HOLL	04	03	1658	S19	W67	03	29.7		A	AXX	10	1		2
8925	29648	MWIL	04	04	1430	S19	W77	03	29.8	4	(AF)					
8929	29647	MWIL	03	23	1515	S25	E83	03	30.1	2	AP					
8929		HOLL	03	23	1520	S24	E83	03	30.0		A	AXX	10	1	1	3
8929		VORO	03	23	2356	S25	E75	03	29.8			HAX	29	1		3
8929		TACH	03	24	0522	S24	E76	03	30.1			AXX	10	1	1	4
8929		SVTO	03	24	0630	S25	E75	03	30.1		A	AXX		1		3
8929		LEAR	03	24	0713	S26	E71	03	29.8		A	AXX		1		2
8929		KAND	03	24	0735	S25	E73	03	30.0			AXX		2	1	5
8929		KAND	03	24	0735	S25	E73	03	30.0			AXX		2	1	5
8929		RAMY	03	24	1346	S25	E70	03	30.0		A	AXX	10	1		4
8929		HOLL	03	24	1537	S25	E70	03	30.1		A	AXX	10	1	1	2
8929	29647	MWIL	03	24	1715	S25	E68	03	30.0	4	(AP)					
8929		SVTO	03	25	0835	S26	E62	03	30.2		A	HRX		1		3
8929		KAND	03	25	1110	S25	E58	03	29.9			AXX		2	1	3
8929		KAND	03	25	1110	S25	E58	03	29.9			AXX		2	1	3
8929		RAMY	03	25	1234	S24	E58	03	30.0		A	AXX		1		3
8929	29647	MWIL	03	25	1515	S25	E56	03	30.0	4	(AP)					
8929		HOLL	03	25	1617	S25	E57	03	30.1		A	AXX	10	1		3
8929		KAND	03	31	0725	S23	W22	03	29.6			AXX		1	1	3
8929		KAND	03	31	0725	S23	W22	03	29.6			AXX		1	1	3
8929		LEAR	04	01	0200	S23	W30	03	29.9		B	DSO	30	4	6	3
8929		KAND	04	01	1220	S23	W34	03	30.0			AXX		1		2
8929		RAMY	04	01	1310	S22	W33	03	30.1		A	AXX		1		4
8929		LEAR	04	02	0130	S22	W41	03	30.0		A	HSX	10	1	1	3
8928A		KAND	03	28	0645	N13	E21	03	29.9			AXX		2	1	3
8928A	29658	MWIL	03	28	1515	N13	E15	03	29.8	3	(AF)					
8925C		KAND	03	24	0735	S37	E75	03	30.3			AXX		1		5
8925C		KAND	03	25	1110	S36	E61	03	30.4			AXX		2	4	3
8925C		RAMY	03	25	1234	S36	E60	03	30.3		B	BXO		2	3	3
8925C	29653	MWIL	03	25	1515	S36	E56	03	30.1	3	(AP)					
8925C		HOLL	03	25	1617	S36	E57	03	30.2		A	AXX		1		3
8931		VORO	03	23	2356	S10	E78	03	29.8			HAX	51	1		3
8931		SVTO	03	24	0630	S09	E78	03	30.1		A	HRX	10	1	1	3
8931		LEAR	03	24	0713	S10	E75	03	29.9		A	HRX	30	1	1	2
8931		KAND	03	24	0735	S11	E75	03	29.9			AXX		3		5
8931		RAMY	03	24	1346	S09	E72	03	30.0		A	HSX	50	1	2	4
8931		HOLL	03	24	1537	S09	E71	03	30.0		A	HAX	50	1	2	2
8931	29650	MWIL	03	24	1715	S10	E70	03	30.0	4	(AP)					
8931	29651	MWIL	03	24	1715	S15	E76	03	30.5	2	B					
8931		SVTO	03	25	0835	S13	E67	03	30.4		B	CAO	20	2	6	3
8931		KAND	03	25	1110	S09	E61	03	30.0			AXX		1		3
8931		KAND	03	25	1110	S14	E66	03	30.4			BXO		2	6	3
8931		RAMY	03	25	1234	S12	E63	03	30.3		B	BXO	10	6	9	3
8931	29650	MWIL	03	25	1515	S10	E57	03	29.9	4	(AP)					
8931	29651	MWIL	03	25	1515	S15	E65	03	30.5	4	(B)					
8931		HOLL	03	25	1617	S09	E58	03	30.0		A	AXX		1		3
8931		VORO	03	26	0053	S12	E56	03	30.2			HAX	35	2	4	3

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

MARCH 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8931		LEAR	03 26 0350	S10 E52	03 30.1		A	HSX	20	2	1	2
8931		LEAR	03 26 0350	S15 E58	03 30.5		B	DSO	30	5	5	2
8931		KAND	03 26 0755	S09 E51	03 30.1			AXX		1	1	3
8931		KAND	03 26 0755	S13 E56	03 30.5			BXO		3	10	3
8931		RAMY	03 26 1216	S12 E52	03 30.4		B	BXO	10	7	11	3
8931	29650	MWIL	03 26 1500	S10 E46	03 30.1	4	(AP)					
8931	29651	MWIL	03 26 1500	S15 E51	03 30.5	4	(B)					
8931		HOLL	03 26 1608	S10 E46	03 30.1		A	AXX	10	2	1	3
8931		HOLL	03 26 1608	S15 E52	03 30.6		B	BXO	30	10	7	3
8931		VORO	03 26 2235	S10 E42	03 30.1			AXX	9	1		2
8931		LEAR	03 27 0104	S10 E40	03 30.0		B	CSO	10	4	2	2
8931		LEAR	03 27 0104	S15 E45	03 30.4		B	CSO	20	4	5	2
8931		KAND	03 27 0825	S11 E36	03 30.0			BXO		3	2	3
8931		KAND	03 27 0825	S14 E40	03 30.4			BXO		3	6	3
8931		SVTO	03 27 1025	S11 E38	03 30.3		B	BXO	10	3	6	3
8931		SVTO	03 27 1025	S15 E44	03 30.8		A	HRX		1		3
8931		RAMY	03 27 1218	S13 E38	03 30.4		B	BXO		2	11	3
8931		HOLL	03 27 1500	S10 E33	03 30.1		A	AXX	10	2	1	3
8931		HOLL	03 27 1500	S14 E38	03 30.5		B	BXO	20	5	5	3
8931		LEAR	03 28 0054	S14 E33	03 30.5		B	DSO	20	5	4	4
8931		KAND	03 28 0645	S15 E30	03 30.5			BXO		5	5	3
8931		SVTO	03 28 1015	S14 E28	03 30.5		B	DAO	30	3	4	3
8931	29651	MWIL	03 28 1515	S15 E26	03 30.6	4	(BF)					
8931		KAND	03 29 0820	S13 E16	03 30.5			CSO		11	7	3
8931		SVTO	03 29 0930	S14 E15	03 30.5		B	DAO	60	11	5	3
8931		RAMY	03 29 1300	S13 E12	03 30.4		B	DAO	70	10	5	4
8931		HOLL	03 29 1417	S13 E12	03 30.5		B	DSO	30	9	5	2
8931	29651	MWIL	03 29 1515	S14 E12	03 30.5	4	(B)					
8931		VORO	03 29 2150	S14 E08	03 30.5			DAI	49	6	5	2
8931		LEAR	03 30 0057	S14 E07	03 30.6		B	DSO	40	10	7	3
8931		TACH	03 30 0630	S13 E04	03 30.6			BRO	68	6	7	3
8931		SVTO	03 30 0828	S13 E02	03 30.5		B	EAO	60	8	11	4
8931		KAND	03 30 0925	S13 E01	03 30.5			DSI		14	9	5
8931		RAMY	03 30 1205	S13 W01	03 30.4		B	DAO	60	8	9	4
8931	29651	MWIL	03 30 1500	S14 W03	03 30.4	4	(B)					
8931		HOLL	03 30 1630	S15 W04	03 30.4		B	DAI	80	12	8	3
8931		VORO	03 31 0205	S15 W09	03 30.4			BXI	42	4	7	2
8931		TACH	03 31 0522	S14 W10	03 30.5			CRI	88	18	7	4
8931		KAND	03 31 0725	S14 W11	03 30.5			BXO		6	9	3
8931		SVTO	03 31 1129	S14 W14	03 30.4		B	DAO	40	10	9	3
8931		RAMY	03 31 1227	S14 W14	03 30.5		B	BXO	20	20	8	3
8931		HOLL	03 31 1837	S15 W18	03 30.4		B	CAO	40	15	9	2
8931	29651	MWIL	03 31 2000	S14 W17	03 30.5	4	(B)					
8931		VORO	04 01 0051	S14 W18	03 30.8			DAI	89	3	3	2
8931		LEAR	04 01 0200	S14 W22	03 30.5		B	EAO	100	15	10	3
8931		SVTO	04 01 0810	S14 W26	03 30.5		B	DAO	60	17	9	2
8931		KAND	04 01 1220	S14 W28	03 30.5			DAI		16	8	2
8931		RAMY	04 01 1310	S13 W28	03 30.5		B	DAI	40	16	10	4
8931		HOLL	04 01 1455	S13 W28	03 30.6		B	EAO	170	20	11	3
8931	29651	MWIL	04 01 2000	S14 W30	03 30.7	4	(B)					
8931		VORO	04 01 2149	S11 W28	03 30.9			DAI	129	7	5	2
8931		LEAR	04 02 0130	S14 W34	03 30.6		B	EAO	160	18	10	3
8931		SVTO	04 02 0710	S13 W36	03 30.7		B	CAO	60	9	6	4
8931		KAND	04 02 1150	S13 W38	03 30.7			DAI		15	7	4
8931	29651	MWIL	04 02 1500	S13 W41	03 30.6	5	(B)					
8931		HOLL	04 02 1530	S14 W42	03 30.6		B	DSO	210	27	9	3
8931		VORO	04 02 2313	S14 W46	03 30.6			DAI	291	6	5	1
8931		KAND	04 03 0615	S14 W50	03 30.6			DAO		11	9	4
8931		RAMY	04 03 1304	S13 W54	03 30.6		B	DAO	80	10	8	3
8931	29651	MWIL	04 03 1445	S14 W55	03 30.5	5	(B)					
8931		HOLL	04 03 1658	S14 W57	03 30.5		B	DAO	50	12	9	2
8931		LEAR	04 04 0702	S13 W63	03 30.6		B	DSO	70	4	9	3
8931		KAND	04 04 0730	S14 W65	03 30.5			DSO		5	10	4
8931		SVTO	04 04 0746	S15 W63	03 30.6		B	DAO	100	3	9	2
8931	29651	MWIL	04 04 1430	S14 W68	03 30.6	4	(B)					
8931		HOLL	04 04 1537	S15 W67	03 30.7		B	CSO	30	8	8	3
8931		RAMY	04 04 1548	S13 W70	03 30.5		B	DSO	40	5	9	1
8931		LEAR	04 05 0115	S15 W72	03 30.7		B	DSO	80	8	6	3
8931		VORO	04 05 0226	S16 W71	03 30.8			HAX	65	3		2

SUNSPOT GROUPS
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NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8931		KAND	04	05	0705	S14	W80	03	30.3			DSO		2	10	4
8931		RAMY	04	05	1203	S13	W80	03	30.6		B	DSO	70	3	10	3
8931		HOLL	04	05	1423	S14	W82	03	30.5		B	EAO	70	4	13	3
8931	29651	MWIL	04	05	1445	S14	W81	03	30.6	4	(B)					
8933	29655	MWIL	03	26	1500	N16	E50	03	30.4	4	(B)					
8933		HOLL	03	26	1608	N16	E51	03	30.5		B	BXO	20	2	1	3
8933		VORO	03	26	2235	N16	E46	03	30.4			AXX	15	1		3
8933		LEAR	03	27	0104	N16	E44	03	30.4		B	CSO	10	2	1	2
8933		KAND	03	27	0825	N16	E39	03	30.3			AXX		1	1	3
8933		SVTO	03	27	1025	N16	E39	03	30.4		A	HRX	10	1	1	3
8933		RAMY	03	27	1218	N15	E40	03	30.5		B	BXO	10	4	5	3
8933		HOLL	03	27	1500	N16	E38	03	30.5		B	BXO	10	4	5	3
8933		LEAR	03	28	0054	N16	E33	03	30.5		B	CSO	20	10	7	4
8933		KAND	03	28	0645	N16	E29	03	30.5			BXO		7	8	3
8933		SVTO	03	28	1015	N16	E25	03	30.3		B	ERO	30	4	12	3
8933	29655	MWIL	03	28	1515	N16	E24	03	30.4	4	(BP)					
8933		KAND	03	29	0820	N16	E15	03	30.5			BXO		5	8	3
8933		SVTO	03	29	0930	N16	E14	03	30.4		B	DAO	30	5	8	3
8933		RAMY	03	29	1300	N16	E12	03	30.4		B	DSO	30	4	8	4
8933		HOLL	03	29	1417	N16	E12	03	30.5		B	CSO	20	4	8	2
8933	29655	MWIL	03	29	1515	N16	E11	03	30.5	4	(B)					
8933		VORO	03	29	2150	N16	E07	03	30.4			BXI	54	4	8	2
8933		LEAR	03	30	0057	N16	E07	03	30.6		B	CRO	10	6	8	3
8933		TACH	03	30	0630	N17	E04	03	30.6			BRO	23	2	7	3
8933		SVTO	03	30	0828	N16	E02	03	30.5		B	CRO	20	4	9	4
8933		KAND	03	30	0925	N15	E01	03	30.5			BXO		4	8	5
8933		RAMY	03	30	1205	N16	E00	03	30.5		B	DSO	30	4	6	4
8933	29655	MWIL	03	30	1500	N15	W03	03	30.4	4	(B)					
8933		HOLL	03	30	1630	N16	W05	03	30.3		B	CSO	20	4	8	3
8933		VORO	03	31	0205	N16	W05	03	30.7			AXX	31	2	1	2
8933		TACH	03	31	0522	N16	W07	03	30.7			BRI	52	9	1	4
8933		KAND	03	31	0725	N15	W09	03	30.6			CSO		4	3	3
8933		SVTO	03	31	1129	N16	W11	03	30.6		B	DAO	30	5	4	3
8933		RAMY	03	31	1227	N15	W11	03	30.7		B	CRO	20	8	4	3
8933		HOLL	03	31	1837	N15	W17	03	30.5		B	DAO	50	4	4	2
8933	29655	MWIL	03	31	2000	N15	W15	03	30.7	4	(B)					
8933		VORO	04	01	0051	N16	W18	03	30.8			DAI	77	4	4	2
8933		LEAR	04	01	0200	N15	W18	03	30.8		B	DSO	120	10	5	3
8933		SVTO	04	01	0810	N17	W23	03	30.7		B	DSO	50	8	5	2
8933		KAND	04	01	1220	N15	W25	03	30.7			BXO		6	6	2
8933		RAMY	04	01	1310	N17	W26	03	30.7		B	DSO	30	10	5	4
8933		HOLL	04	01	1455	N16	W26	03	30.7		B	BXO	40	9	6	3
8933	29655	MWIL	04	01	2000	N15	W28	03	30.8	4	(B)					
8933		VORO	04	01	2149	N16	W30	03	30.7			DAI	70	6	4	2
8933		LEAR	04	02	0130	N17	W31	03	30.8		B	DSO	130	18	7	3
8933		SVTO	04	02	0710	N18	W35	03	30.7		B	CSO	60	10	6	4
8933		KAND	04	02	1150	N17	W38	03	30.7			DSO		17	6	4
8933	29655	MWIL	04	02	1500	N17	W40	03	30.7	5	(B)					
8933		HOLL	04	02	1530	N17	W40	03	30.7		B	DAO	150	24	7	3
8933		VORO	04	02	2313	N16	W44	03	30.7			DAI	205	4	5	1
8933		KAND	04	03	0615	N17	W49	03	30.6			DSO		18	9	4
8933		RAMY	04	03	1304	N18	W52	03	30.7		B	DSO	220	13	9	3
8933	29655	MWIL	04	03	1445	N17	W53	03	30.7	5	(B)					
8933		HOLL	04	03	1658	N17	W55	03	30.6		B	DSO	280	21	10	2
8933		LEAR	04	04	0702	N18	W62	03	30.7		BD	EKI	590	10	11	3
8933		KAND	04	04	0730	N18	W65	03	30.5			EKO		17	12	4
8933		SVTO	04	04	0746	N16	W61	03	30.8		B	EKO	280	5	11	2
8933	29655	MWIL	04	04	1430	N17	W66	03	30.7	4	(B)					
8933		HOLL	04	04	1537	N17	W66	03	30.7		B	DAO	350	15	10	3
8933		RAMY	04	04	1548	N18	W68	03	30.6		B	EKI	410	9	11	1
8933		LEAR	04	05	0115	N17	W69	03	30.9		BD	EKO	400	14	11	3
8933		VORO	04	05	0226	N17	W73	03	30.6			DAO	201	4	11	2
8933		KAND	04	05	0705	N18	W77	03	30.5			FAO		4	16	4
8933		RAMY	04	05	1203	N19	W81	03	30.4		B	FKO	270	6	18	3
8933		HOLL	04	05	1423	N18	W80	03	30.6		B	FAO	200	4	18	3
8933	29655	MWIL	04	05	1445	N18	W76	03	30.9	5	(BF)					
8933		VORO	04	05	2228	N18	W78	03	31.0			HAX	213	1		2
8933		LEAR	04	06	0016	N19	W83	03	30.8		A	HH	180	2	6	4

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

MARCH 2000

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
8934	29656	MWIL	03 26 1500	N21 E70	04 1.0	2	AP					
8934		HOLL	03 26 1608	N22 E71	04 1.1		A	AXX	20	1	1	3
8934		LEAR	03 27 0104	N20 E66	04 1.1		B	CSO	10	5	3	2
8934		KAND	03 27 0825	N22 E61	04 1.0			AXX		2	1	3
8934		SVTO	03 27 1025	N22 E60	04 1.0		A	HAX	20	1	3	3
8934		RAMY	03 27 1218	N22 E58	04 1.0		B	BXO	10	2	2	3
8934		HOLL	03 27 1500	N22 E57	04 1.0		A	AXX	10	3	2	3
8934		LEAR	03 28 0054	N21 E52	04 1.0		B	CRO	20	5	5	4
8934		KAND	03 28 0645	N22 E48	04 1.0			BXO		2	2	3
8934		SVTO	03 28 1015	N22 E45	03 31.9		B	CRO	20	2	2	3
8934	29656	MWIL	03 28 1515	N22 E42	03 31.9	4	(AP)					
8934		SVTO	03 29 0930	N22 E32	03 31.8		A	AXX		1		3
8934		RAMY	03 29 1300	N22 E31	03 31.9		B	BXO	10	2	3	4
8934	29656	MWIL	03 29 1515	N21 E28	03 31.8	4	(AP)					
8934		SVTO	03 30 0828	N22 E19	03 31.8		B	CRO	10	3	4	4
8934		RAMY	03 30 1205	N20 E16	03 31.7		A	AXX		1		4
8934A	29671	MWIL	04 03 1445	S10 W37	03 31.8	3	(AF)					

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth
MWIL = Mt. Wilson
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
TACH = Tashkent
VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES

MARCH 2000

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	LF-SES	Flare (UT)	X-ray Class	NOAA Region
02	0822	0829	0851	3	5	1	4	1			0820	X1.1	8882
02	1314	1325U	1339	1	1		1				1306	C5.5	8882
02	1337	1344	1421	3	5	1	1	2			1335	M6.5	8882
02	1456	1520	1555	1	1		1				1500	C3.5	8891
03	0708	0714	0830	1	1		1				0707	C3.9	8886
03	0835	0847	0919	1	1		1				No flare		
03	0936	0948	1004	2	3		2				*		
03	1038	1045	1114	2	3		2				1040	M4.0	8886
04	0736	0740U	0810	2	1		1				No flare		
04	0958	1006	1048	1	1		1				No flare		
05	0857	0906	0926	2	1		1				0856	C5.1	8891
05	1207	1218U	1304D	1	1		1				No flare		
05	1316	1330U	1400	1	1		1				1318	C2.0	
05	1529	1536	1601	2+	5		2	1			1529	C9.6	8898
06	0839	0900	0941	1	1		1				*		
06	0952	1053	1116	2	1		1				1043	C4.5	
06	1100	1136	1231	1	3		2				1119	C3.8	
06	1324	1400U	1428	1	1		1				No flare		
06	1619	1624	1644	1	1		1				1616	C3.9	8889
07	0856	0903	0935	1	1		1				No flare		
07	1214	1300	1316	1	1		1				1228		8899
07	1306	1336	1413	1	3		2				1327	C7.6	
07	1424	1446	1508	1	1		1				1421	C6.3	8891
07	1512	1516	1553	1	1		1				1509	C5.1	
07	1606	1616	1650	2	1		1				1601	M1.2	
08	1002	1006	1021	1	1		1				1004		8900
08	1053	1102	1118	3	5	1	2	1			1051	C7.6	
08	1212	1220	1241	1	1		1				1212	C3.4	
09	0910	0914	1014	2	1		1				No flare		
09	1200	1214	1234	2	1		1				No flare		
09	1234	1303	1334D	2	1		1				No flare		
09	1342	1400	1500	2	1		1				1336	C1.5	8906
09	1602	1620	1643	2	3		2				1612	C1.5	
10	0832	0837	0914	1	1		1				0832	C2.4	
10	0937	0945	1005	1	1		1				No flare		
10	1035	1039	1053	1	1		1				1032	C4.1	8906
10	1058	1102	1150	1	1		1				1053	C2.6	8906
11	0923	0932	0942	3	5	1	2	1			0915	M1.3	8906
11	1109	1112	1128	3-	5	1	3	1			1106	C5.7	8906
11	1439	1444U	1521	1	1		1				1422	C4.5	8904
12	0833	0835	0850	1	1		1				No flare		
12	0903	0906	0906D	2+	5	1	3	1			0900	C5.8	8906
12	1135U	1213U	1257U	2	1		1				1128	C1.4	8898
13	0822	0825	0844	2	5		2	1			0820	C3.7	8906
13	0909	0912	0936	1	1		1				No flare		
13	1041	1053	1117	3	5	1	3	1			1038	M1.4	8906
13	1305	1315	1355	1	1		1				No flare		
13	1446	1512U	1529	1	1		1				1507	C1.4	
14	0906	0911	0940	1	1		1				0856	C1.7	8910
15	0732	0742	0811	1+	1		1				0749	C4.1	
15	1843	1845	2000	2	1			1			1836	M1.4	8906
16	1104	1108	1134	3-	5	1	3	1			1059	C6.2	8906
16	1350	1359	1414	1	1		1				1405	C6.3	8910
16	1408	1413	1425	2	5	1	3	2			1405	C6.3	8910

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES
MARCH 2000

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	LF-SES	Flare (UT)	X-ray Class	NOAA Region
16	1517	1527	1600	1-	1			1			1516	C3.3	8906
16	1835	1842	2015	1+	1			1			1832	C9.0	8906
17	0729	0731	0802	1	1		1				0726	C3.3	8906
17	0806	0820	0905	1	1		1				0805	C4.3	8910
17	0934	0942	1010	1	1		1				0935	C1.8	8910
17	1113	1127	1127D	3	5	1	3	2			1108	M1.1	8906
17	1443	1514	1541	1	1		1				No flare		
18	0844	0859	0948	1	1		1				0843	C2.7	
18	1300	1324	1357	1	1		1				No flare		
18	2050	2106	2106D	1+	1			1			2047	M2.1	
19	0848U	0919U	1116U	2	1		1				0901	C2.7	8910
19	1143	1155	1217	2-	5	1	3	2			1136	C5.3	8910
19	1307	1313	1325	1-	1			1			No flare		
19	1346	1409	1416	1	1		1				1412	C2.9	8906
19	1414	1422	1440	2	5		3	2			1412	C2.9	8906
19	1658	1720	1720D	2	1			1			1701	M1.6	8906
19	1754	1800	1845	1-	1			1			1701	M1.6	8906
20	0751	0807	0840	2	3		2				0821	M2.2	
20	0823	0834	0911	3-	5	1	3	1			0821	M2.2	
20	1006	1012U	1047	1	1		1				1002	C4.0	
20	1055	1103	1120	2+	5	1	3	1			1053	C8.4	8910
20	1310	1400	1425	1	1		1				*		
20	1451	1502	1539	1	1		1				1452	C2.7	8918
20	1641	1647	1721	2+	3		2				1637	M2.4	8910
21	0711	0721	0802	2	3		2				0717	C7.1	8910
21	1245	1314	1341	1	1		1				No flare		
21	1413	1427	1444	3	5	1	3	2			1412	M1.0	8918
22	0707	0722	0750	2	3		2				0715	C5.5	8917
22	0859	0928	0949	1	1		1				0918	C3.8	
22	1102	1109	1129	2	5	1	3	1			1047	C9.3	8913
22	1306	1313	1412	2	5	1	1	2			1303	C5.1	8910
22	1537	1544	1600	1-	1			1			No flare		
22	1744	1750	1750D	1	1			1			1741	C7.7	8917
22	1830	1850	2030	3	1			1			1834	X1.1	8910
23	0757	0815	0918	2	3		2				0756	C7.5	8917
23	1018	1027	1051	2+	5	1	1	1			1023		8910
23	1150	1216	1340	2+	5	1	2	2			1132	M2.0	8910
23	1500	1515	1557	1	1		1				No flare		
23	1632	1635	1650	1-	1			1			1629	C2.8	
24	0746	0804	0849	3	5	1	3	1			0741	X1.8	8910
24	1126	1130	1159	2+	5	1	4	2			1125	M2.8	
24	1434	1454	1520	1	1		1				1438		
24	1518	1524	1628	3	5	1	3	1			1513	M2.6	
24	1607	1611	1642	1-	1			1			No flare		
24	1815	1830	1830D	1-	1			1			1816	C3.7	
24	1847	1853	1930	1-	1			1			No flare		
25	0750	0812	0835	2	1		1				*		
25	0938	0943	1012	3	5	1	3	1			0936	C8.0	8926
25	1221	1227	1227D	1-	1			1			1220	C5.0	8926
25	1316	1326	1350	1-	1			1			1317	C2.7	8926
25	1447	1454	1454D	1-	1			1			1447		8924
25	1505	1513U	1520	1-	1			1			No flare		
25	1531	1536	1550	2	5		1	2			1530	C2.8	
26	1025	1039	1134	1	1		1				*		
26	1145	1223	1330	1+	1			1			1138	C4.5	
26	1425	1510	1550	1-	1			1			1446	C2.8	8916
26	1729	1736	1900	3	1			1			1727	M2.3	8926

* = no flare patrol.

MARCH 2000

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	LF-SES	Flare (UT)	X-ray Class	NOAA Region
27	1038	1044	1100	2+	5	1	1	1			1034	C6.2	8926
27	1358	1402	1402U	3-	5		2	1			1356	C8.4	8926
27	1415	1420	1440	2	5	1	2	1			1413	C7.9	8926
27	1531	1541	1551	2-	5		2	1			1529	C8.9	8926
28	1028	1040U	1102	1	1		1				1032	C1.8	
28	1628	1645	1810	1-	1			1			1626	C4.7	
28	1904	1916	1916D	1	1			1			1903	C8.7	
28	2025	2036	2036D	1-	1			1			2027	C4.0	
29	0910	0940	1010	2	1		1				0919	C2.7	
29	1429	1435	1500	1-	1			1			1429		8925
29	1835	1848	1945	1-	1			1			1830	C4.4	8936
30	0708	0710U	0711D	2	5		3	1			0659	M1.2	
30	0848	1014	1033	1	1		1				No flare		
30	1150	1208	1242	1	1		1				No flare		
30	1241	1248	1331	3	5	1	3	2			1239	M1.3	8936
30	1347	1413	1530	1	1		1				1349	C2.4	8925
30	1436	1443	1443D	1-	1			1			1435	C4.0	8925
30	1510	1518	1550	1-	1			1			1509	C3.3	8925
30	1602	1608	1639	3	5	1	3	2			1558	M3.4	8936
30	1800	1807	1807D	1-	1			1			1758	C4.3	8936
30	1852	1900	1945	1-	1			1			1849	C3.0	8936
31	0624	0632	0654	3-	1			1			0622	M1.2	8936
31	0629	0655	0723	1+	3		3				0622	M1.2	8936
31	0752	0755	0755D	2	5	1	3	1			0750	M1.0	8939
31	0829	0833	0838	1	1		1				No flare		
31	0856	0904	0926	1	1		1				No flare		
31	0928	0932	1004	2+	5	1	3	1			0926	C8.5	8936
31	1014	1025	1039	3	5	1	3	2			1013	M4.1	8939
31	1143	1148	1223	2	5	1	3	2			1141	C6.5	8936
31	1315	1322	1515	2+	5	1	3	2			1312	M1.8	8939
31	1459	1509	1557	1	3		2				No flare		
31	1654	1659	1815	2	5		1	2			1650	M1.2	8939
31	1845	1903	2035	2	1			1			1842	M2.0	8925

* = no flare patrol.

OBSERVATORIES REPORTING FOR MARCH 2000

Itapetinga, Brazil	SPA	Vlasim, Czech Republic	SEA
Panska Ves, Czech Republic	SES, SEA, SWF	Ziar nad Hronom, Slovakia	SEA
Rimavska Sobota, Slovakia	SEA	Zilina, Slovakia	SEA
Upice, Czech Republic	SEA		

Observations are not necessarily continuous.

SOLAR RADIO EMISSION
Spectral Observations

MARCH 2000

Day	OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
01			LEAR	0004.0	0943.0	CONT		2	30	60	
	0000	0745	CULG	0010.0	0010.0	III	B	1	30	130	
			CULG	0025.0	0248.0	III	S	1	18	90	
			CULG	0315.0	0317.0	UNCLF		1	35	90	
			CULG	0430.0	0430.0	III	G	1	18	90	
			CULG	0529.0	0604.0	III	N	1	25	90	
			CULG	0532.0	0639.0	I	S	1	130	180	
	0000	0835	HIRA	0602.0	0603.0	III	B	1	120	500	
			CULG	0603.0	0603.0	III	B	1	120	640	
	0646	1200	IZMI	0646.0E	1200.0D	I	S	2	135	270X	
			IZMI	0700.3	0702.2	III	GG	2	80	270X	
			IZMI	0702.4	0702.5	III	G	3	65	270X	
			CULG	0703.0	0703.0	III	B	1	60	230	
			IZMI	0747.0	1200.0D	III	N	1	45	95	
			IZMI	0842.8	0845.8	III	GG	1	120	270X	
			SVTO	1014.0	1015.0	III		1	62	75	
			IZMI	1014.1	1015.6	III	GG	2	50	270X	
	0655	1530	ONDR	1014.2	1014.5	DCIM	G	1	800X	2000X	
	0609	1405	POTS	1014.4	1016.9	III	G	2	40X	375U	
			IZMI	1015.9	1016.3	III	G	3	55	270X	
			IZMI	1109.8	1110.7	III	B	2	38	95	
			POTS	1110.6	1110.8	III	B	1	40X	90U	
			POTS	1114 E	1405 U	I	S,C,DC	2	80	375U	
			SVTO	1147.0	1148.0	III		1	35	85	
			IZMI	1147.3	1148.3	III	GG,C	2	30	270X	
			POTS	1147.4	1148.2	III	G	2	40X	375U	
			POTS	1201.9	1202.1	III	G	1	110U	170U	
			SVTO	1210.0	1210.0	III		1	35	85	
			POTS	1210.1	1211.0	III	G	2	40X	340U	
			POTS	1213.2	1213.3	III	B	1	40X	70	
			POTS	1220.0	1220.1	III	B	1	110U	150	
			POTS	1258.9	1259.2	III	G	2	110U	170U	
			POTS	1301.7	1301.8	III	B	1	40X	65	
			POTS	1305	1357	III	N	1	40X	70	
			SGMR	1553.0	1553.0	III		1	30	70	
			SVTO	1553.0	1553.0	III		1	50U	76U	
	2030	2400	CULG	2030.0E	2400.0D	III	S	1	18	160	
			CULG	2044.0	2046.0	III	G	2	20	300	
			PALE	2044.0	2046.0	III		2	25	75	
			SGMR	2045.0	2046.0	III		2	35	75	
			PALE	2101.0	2103.0	III		1	25	45	
			PALE	2115.0	0026.0	III	N	2	25	75	
	2104	2400	HIRA	2256.0	2257.0	III	B	2	40	240	
			HIRA	2337.0	2341.0	III	G	2	30	300	
			LEAR	2337.0	0823.0	CONT		2	30	80	
			CULG	2338.0	2341.0	III	G	2	18X	300	
			LEAR	2340.0	2341.0	III		2	30	80	
02	0000	0745	CULG	0000.0E	0138.0	III	S	1	18	160	
			CULG	0100.0	0101.0	III	G	2	40	180	
			LEAR	0213.0	0217.0	III		3	30	80	
			PALE	0213.0	0214.0	III		2	30	75	
			CULG	0214.0	0217.0	III	G	3	18X	350	
	0000	0836	HIRA	0214.0	0215.0	III	B	3	40	340	
			CULG	0224.0	0227.0	III	G	1	28	300	
			CULG	0245.0	0251.0	III	GG	3	18	270	
			HIRA	0245.0	0250.0	III	G	3	30	270	
			LEAR	0245.0	0633.0	III	N	3	30	80	
			CULG	0259.0	0300.0	III	G	2	28	180	
			HIRA	0259.0	0300.0	III	B	1	40	200	
			CULG	0306.0	0308.0	III	G	1	40	180	
			CULG	0336.0	0745.0D	III	S	1	20	180	
			HIRA	0452.0	0457.0	III	G	1	50	200	
			CULG	0453.0	0457.0	III	G	2	20	180	
			SVTO	0644.0	0644.0	III		1	39U	50U	
			SVTO	0654.0	1620.0	CONT		2	35	85	
			IZMI	0720.0E	1200.0D	III	S	2	41	120	
	0720	1200	IZMI	0720.0E	1200.0D	I	S,C	2	40	270X	
			IZMI	0720.9	0728.4	III	GG	2	25	95	

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02		IZMI	0821.7	0822.9	III	GG	2	40	270X	
		HIRA	0823.0	0825.0	III	G	3	40	270	
		IZMI	0823.0	0824.2	III	GG,C	2	30	270	
		LEAR	0823.0	0906.0	IV		3	30	80	
		SVTO	0823.0	0829.0	V		2	35	85	
		IZMI	0824.2	0826.8U	III	GG	2	25X	270X	
		IZMI	0824.2	0828.0U	CONT		2	25X	250	
		ONDR	0824.2	0836.0	DCIM	GG	2	800X	2000X	
0653	1534	ONDR	0824.2	0828.3	DCIM	GG	2	2000X	4500X	
0630	1551	POTS	0824.3	0824.9	III	G	3	40X	250U	
0730	1605	BLEN	0824.4	0836.0	III	GG,RS	3	1000X	2800X	
		POTS	0824.9	0826.0	V		2	40X	65	
		IZMI	0826.8	0845.0U	II	HARM	2	25X	270X	
		IZMI	0826.8U	1200.0U	CONT		1	45	160	
		HIRA	0827.0	0831.0	II		2	40	70	ESS 1100
		SVTO	0827.0	0846.0	II		2	35	85	ESS 2000
		POTS	0827.4	0835.8	II	SH,H	2	75	170U	
		POTS	0827.5U	0840.0	II	F,H	2	40X	75	
		IZMI	0835.6	0836.2	III	G	1	35	270X	
		LEAR	0906.0	1035.0	CONT		1	30	80	
		IZMI	0940.2	0940.7	III	G	2	35	180	
		IZMI	0942.1	0942.9	III	GG	2	30	270X	
		POTS	0942.5	0942.8	III	G	1	40X	325U	
		IZMI	1005.8	1006.7	III	G	2	40	95	
		POTS	1006	1539	III	N	1	40X	90U	
		POTS	1010 U	1526 U	I	S,C,DC	3	40X	400U	
		IZMI	1013.7	1014.6	III	G	2	45	180	
		IZMI	1051.7	1053.1	III	G	2	25	270X	
		POTS	1052.1	1052.6	III	G	2	40X	250U	
		IZMI	1058.0U	1200.0D	III	N	2	25	95	
		IZMI	1117.1	1118.0	III	G,RS	2	30	115	
		POTS	1156.1	1156.5	III	G	3	40X	225U	
		SGMR	1213.0	1718.0	CONT		2	30	80	
		POTS	1336.4	1336.8	III	B	3	40X	170U	
		SGMR	1337.0	1343.0	III		3	30	80	
		SVTO	1337.0	1342.0	V		3	35	85	
		ONDR	1337.4	1344.2	DCIM	GG	2	2000X	4500X	
		ONDR	1337.5	1340.3	DCIM	GG	2	800X	2000X	
		POTS	1337.6	1344.3	III	GG,C	3	40X	250U	
		BLEN	1339.4	1339.6	III	RS	3	1000X	1500	
		SVTO	1341.0	1347.0	II		3	35U	85U	ESS 0700
		POTS	1447.5	1447.9	III	G	3	40X	170U	
		POTS	1453.1	1453.6	III	G	3	40X	170U	
		SVTO	1528.0	1529.0	III		2	35	85	
		SGMR	1609.0	1610.0	III		2	30	80	
		SVTO	1609.0	1610.0	III		2	35	85	
		PALE	1854.0	1855.0	III		2	25	75	
		SGMR	1854.0	1855.0	III		2	30	80	
		PALE	1957.0	0103.0	III	N	1	25	60	
		CULG	2030.0E	2400.0D	III	N	1	20	130	
2030	2400	CULG	2030.0E	2400.0D	I	S	1	60	180	
		CULG	2055.0	2058.0	III	G	3	18	300	
		SGMR	2056.0	2057.0	III		2	30	80	
2103	2400	HIRA								
		LEAR	2338.0	2338.0	III		2	36	80	
03		CULG	0000.0E	0035.0	III	N	1	20	130	
0000	0745	CULG	0000.0E	0745.0D	I	S	1	80	180	
		LEAR	0024.0	0024.0	III		1	35	60	
		LEAR	0034.0	0451.0	III	N	1	30	75	
		CULG	0207.0	0218.0	III	G	1	25	180	
		PALE	0209.0	0209.0	III		1	35	60	
		CULG	0211.0	0216.0	III	G	2	20	1100	
0000	0836	HIRA	0211.0	0214.0	III	G	3	40	1300	
		CULG	0212.0	0230.0	II	FN,H	3	18	90	SWF
		CULG	0212.0	0235.0	II	SH,H	3	40	180	FLA 1B E
		PALE	0213.0	0241.0	IV		3	25	75	
		HIRA	0214.0	0222.0	II	FN	3	30	90	
		HIRA	0214.0	0230.0	II	SH	3	50	140	

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03			CULG	0218.0	0315.0	IV		1	30	170	
			CULG	0357.0	0357.0	III	B	1	50	300	
			CULG	0411.0	0411.0	III	B	1	18	90	
			LEAR	0546.0	0634.0	III	N	1	30	45	
			HIRA	0632.0	0634.0	III	G	1	40	200	
			LEAR	0632.0	0633.0	III		3	30	80	
			SVTO	0632.0	0632.0	III		1	35	85	
	0630	1551	POTS	0632.6	0632.8	III	B	2	40X	120	
			LEAR	0636.0	0937.0	CONT		3	30	80	
			POTS	0652 E	1529	I	S,C,DC	3	80	250U	
			IZMI	0701.0E	0821.0U	III	S	2	40	180	
	0701	1200	IZMI	0701.0E	1200.0D	I	S	2	95	270X	
			SVTO	0724.0	1511.0	CONT		1	35	85	
			POTS	0726	1420	III	N	1	40X	90U	
			IZMI	0821.0	1200.0D	III	N	1	40	95	
			POTS	0845.4	0847.2	III	GG	3	40X	170U	
			IZMI	0845.5	0847.3	III	GG	2	25X	270X	
			LEAR	0846.0	0936.0	III	N	3	30	80	
			IZMI	0848.6	0850.0	III	G	2	45	125	
			IZMI	0856.8	0857.4	III	G	2	40	270X	
			POTS	0856.8	0857.2	III	G	3	40X	170U	
			IZMI	0914.0	0914.8	III	G	2	25	135	
			POTS	0914.0	0914.4	III	G	2	40X	150	
			IZMI	0914.1	0914.5	V		2	50	70	
			IZMI	0926.8	0927.3	III	GG	2	45	270X	
			POTS	0926.8	0927.3	III	G	3	40X	170U	
			IZMI	0929.2	0929.4	III	B	2	35	160	
	0650	1533	ONDR	1042.1	1050.4	DCIM	GG	2	2000X	4500X	
			ONDR	1044.4	1049.5	DCIM	GG	1	965	2000X	
	0730	1610	BLEN	1044.8	1053.0	DCIM	C	2	1500	2800X	
			IZMI	1119.6	1119.8	III	B,FS	2	45	120	
			ONDR	1147.3	1148.1	DCIM	G	1	800X	1625	
			POTS	1211.9	1212.2	III	B	1	40X	65	
	2030	2400	CULG	2030.0E	2400.0D	I	S	1	60	180	
			CULG	2056.0	2358.0	III	N	1	18	180	
			PALE	2139.0	2140.0	III		2	25	75	
			PALE	2220.0	2220.0	III		1	25	45	
			LEAR	2322.0	0351.0	III	N	1	30	80	
			CULG	2342.0	2342.0	III	B	2	30	270	
	2102	2400	HIRA	2342.0	2343.0	III	B	1	50	220	
04	0000	0745	CULG	0000.0E	0745.0D	I	S	1	80	180	
			CULG	0141.0	0141.0	III	B	1	30	90	
			CULG	0221.0	0222.0	III	G	1	30	90	
			CULG	0305.0	0305.0	III	B	1	18	90	
			CULG	0330.0	0331.0	III	G	2	18X	180	
	0000	0837	HIRA	0330.0	0331.0	III	B	1	25X	200	
			LEAR	0625.0	0636.0	III	N	1	30	80	
	0647	1200	IZMI	0647.0E	1200.0D	I	S,C	2	50	260	
	0648	1538	ONDR								
	0630	1553	POTS	0649 E	1531 U	I	S,C,DC	3	40X	375U	
			LEAR	0658.0	1033.0	CONT		2	30	80	
	0730	1610	BLEN								
			IZMI	0740.0U	1200.0D	III	N	2	45	95	
			SVTO	0747.0	1331.0	CONT		1	35	85	
			IZMI	1136.3	1139.3	III	GG	2	25X	270X	
			POTS	1136.9	1137.1	III	B	3	110U	275U	
			POTS	1137.3	1137.7	III	G	2	40X	90U	
			POTS	1237.3	1237.4	III	B	2	40X	90U	
			POTS	1237.4	1237.6	V		2	40X	60	
			POTS	1421.5	1421.6	III	B	1	40X	65	
			SGMR	1617.0	2125.0	CONT		2	30	80	
			PALE	1818.0	1821.0	II		1	40	60	ESS 0400
	2030	2400	CULG	2030.0E	2306.0	I	S	1	70	170	
	2100	2400	HIRA								
			CULG	2257.0	2258.0	III	G	1	28	130	
			PALE	2257.0	2257.0	III		1	25	75	
05			LEAR	0012.0	0014.0	III		2	30	80	

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05	0000	0745	CULG	0013.0	0034.0	III	N	1	28	130	
	0000	0838	HIRA	0018.0	0019.0	III	B	1	25X	120	
			HIRA	0110.0	0111.0	III	B	1	25X	120	
			LEAR	0110.0	0111.0	III		3	30	80	
			PALE	0110.0	0111.0	III		1	25	75	
			CULG	0111.0	0111.0	III	G	2	28	180	
			LEAR	0112.0	0425.0	CONT		2	30	80	
			CULG	0123.0	0315.0	III	S	1	25	180	
			CULG	0206.0	0207.0	III	G	2	70	450	
			HIRA	0206.0	0207.0	III	B	2	70	400	
			CULG	0340.0	0340.0	III	G	1	200	500	
			CULG	0515.0	0518.0	III	G	1	60	400	
			HIRA	0515.0	0516.0	III	B	1	70	320	
			LEAR	0636.0	0636.0	III		1	30	60	
			HIRA	0650.0	0651.0	III	B	2	30	700	
			LEAR	0650.0	0651.0	III		3	30	80	
			SVTO	0650.0	0651.0	III		2	35	85	
	0647	1433	POTS	0650.2	0650.8	DCIM	U	3	375U	800X	
			POTS	0650.3	0651.2	III	G,U	3	40X	170U	
			CULG	0651.0	0651.0	III	B	3	23	750	
	0702	1200	IZMI	0702.0E	1200.0D	I	S	2	110	270X	
			IZMI	0710.3	0710.7	III	G	2	55	175	
			POTS	0710.4	0710.7	III	G	2	110U	170U	
	0730	1610	BLEN	0717.0	0744.0	DCIM	C	2	1500	2800X	
			HIRA	0730.0	0731.0	III	B	1	80	400	
			IZMI	0730.1	0730.7	III	G,U	3	80	270X	
			IZMI	0730.4	0730.8	CONT		2	200	270X	
			POTS	0730.4	0730.9	III	G,U	3	110U	250U	
			CULG	0731.0	0731.0	III	B	1	80	450	
			IZMI	0743.2	0743.3	III	G,U	1	200	270X	
			IZMI	0814.3	0831.7	III	N	2	40	135	
			IZMI	0814.5	0815.8	I	GG,DC	2	150	240	
			POTS	0814.5	0815.8	II	UE,H	3	140	170U	
			POTS	0814.9	0815.0	DCIM		2	400U	700	
			IZMI	0830.4	0830.5	III	G,U	2	245	270X	
			IZMI	0858.2	0858.4	III	GG	2	170	270X	
			IZMI	0911.3	0911.9	III	G	2	70	175	
			POTS	0911.8	0912.0	III	B	3	120	170U	
			POTS	0929.1	0929.6	DCIM		2	400U	550	
			IZMI	0929.2	0930.4	III	GG,U	2	190	270X	
			SVTO	0935.0	0938.0	III		1	35	84	
			LEAR	0936.0	0937.0	III		1	40	80	
			POTS	0936.2	0937.7	III	G	2	40X	250U	
			IZMI	0936.3	0937.8	III	GG	2	40	270X	
			POTS	0954.6	0954.7	DCIM		2	450	800X	
			IZMI	0955.3	0955.6	III	G,U,HARM	2	55	260	
			POTS	0955.3	0955.6	III	G,U	2	110U	170U	
	0646	1539	ONDR	0958.0	1024.4	DCIM	GG,FS	1	800X	1325	
			IZMI	1004.1U	1004.2	III	G	2	215	270X	
			IZMI	1057.1	1057.3	III	G,U	2	130	270X	
			POTS	1057.1	1057.3	III	G,U	2	130	170U	
			ONDR	1106.2	1106.4	DCIM	G	1	800X	1155	
			IZMI	1111.1	1111.3	III	G,U	2	105	180	
			POTS	1111.1	1111.3	III	G,U	2	110U	170U	
			POTS	1222.1	1222.4	III	G	2	110U	250U	
			ONDR	1230.0	1232.5	DCIM	GG	2	800X	2000X	
			POTS	1230.1	1233.6	III	G	3	40X	300U	
			POTS	1230.9	1233.5	DCIM		2	400U	800X	
			BLEN	1231.1	1231.9	III	GG	2	1000X	2800X	
			POTS	1240.4	1240.9	III	G,RS	2	110U	170U	
			POTS	1243.8	1244.1	III	B	1	40X	150	
			POTS	1246.8	1247.5	DCIM		2	400U	700	
			POTS	1246.9	1247.6	III	G,RS	2	110U	170U	
			ONDR	1253.3	1253.5	DCIM	G	2	800X	1920	
			POTS	1253.4	1254.4	III	G	3	110U	170U	
			POTS	1253.6	1253.9	DCIM		2	400U	800X	
			POTS	1259.0	1259.5	III	G	3	110U	170U	
			POTS	1301.9	1302.2	DCIM		2	400U	500	
			ONDR	1302.0	1302.2	DCIM	W	1	800X	1180	

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05			POTS	1302.0	1303.8	III	G	3	40X	170U	
			BLEN	1302.3	1324.0	III	GG,RS	2	1000X	2600	
			SVTO	1303.0	1428.0	III	N	2	35	85	
			POTS	1306.1	1306.3	III	B	2	110U	170U	
			POTS	1314.1	1314.4	DCIM		2	400U	750	
			POTS	1316.2	1316.3	DCIM		2	400U	550	
			POTS	1316.3	1316.8	III	G,RS	3	40X	170U	
			POTS	1317.5	1317.9	III	G	3	110U	170U	
			SGMR	1319.0	1320.0	III		2	30	80	
			ONDR	1319.3	1324.1	DCIM	GG	2	800X	1965	
			POTS	1319.6	1321.1	III	G,RS	3	40X	275U	
			POTS	1319.8	1320.6	DCIM	U	3	350U	600	
			POTS	1320.0	1320.6	V		2	40X	70	
			POTS	1322.0	1323.9	III	G	3	50	250U	
			POTS	1324.8	1325.0	III	B	3	110U	170U	
			POTS	1325.8	1326.2	III	G,RS	3	110U	170U	
			POTS	1328.1	1328.7	III	G	3	110U	170U	
			POTS	1329.9	1330.3	III	G	3	60	170U	
			POTS	1336.1	1336.3	III	G	2	40X	155	
			POTS	1346.3	1357.0	III	G,RS,U	3	40X	225U	
			ONDR	1353.4	1357.0	DCIM	GG	1	800X	1510	
			POTS	1353.6	1353.9	DCIM		2	400U	500	
			SGMR	1354.0	1424.0	III	N	2	30	80	
			POTS	1406.9	1407.1	III	B	2	120	170U	
			ONDR	1412.1	1413.3	DCIM	GG	1	800X	1215	
			POTS	1412.1	1428.0	III	GG,UG	3	40X	170U	
			ONDR	1424.0	1427.4	DCIM	GG	1	800X	1825	
			POTS	1458.2	1459.3	III	G	2	110U	170U	
			POTS	1506.5	1507.3	III	G	2	110U	170U	
			SVTO	1524.0	1532.0	V		2	35	85	
			POTS	1524.5	1532.0	III	GG,U	3	40X	170U	
			SGMR	1525.0	1532.0	III		3	30	80	
			ONDR	1525.5	1532.3	DCIM	G	1	800X	2000X	
			POTS	1525.7	1530.9	DCIM		2	400U	700	
			BLEN	1525.8	1531.8	DCIM	C	2	1000X	2800X	
			ONDR	1529.5	1531.3	DCIM	G	1	2000X	4500X	
			SVTO	1607.0	1609.0	III		2	35	85	
			BLEN	1607.3	1610.2	III	G,C	1	1000X	2800X	
			SGMR	1608.0	1609.0	III		2	30	80	
	2030	2400	CULG	2136.0	2254.0	I	S	1	110	170	
			CULG	2220.0	2226.0	II	SH	2	60	140	ESS 900
			CULG	2220.0	2227.0	II	FN	2	30	85	
			HIRA	2220.0	2233.0	II	SH	2	50	130	ESS 800
	2059	2400	HIRA	2220.0	2225.0	II	FN	1	40	70	ESS 800
			PALE	2221.0	2236.0	II		2	34	70	ESS 0600
			CULG	2225.0	2240.0	II	SH	3	40	110	ESS 450
			HIRA	2320.0	2329.0	III	G	2	80	340	
			CULG	2321.0	2331.0	III	G	2	60	400	
06	0000	0745	CULG	0004.0	0027.0	III	N	1	70	180	
			CULG	0020.0	0745.0D	I	S	1	120	180	
	0000	0839	HIRA	0026.0	0033.0	III	G	2	80	320	
			CULG	0032.0	0033.0	III	G	2	50	400	
			HIRA	0050.0	0051.0	III	B	1	40	140	
			PALE	0050.0	0050.0	III		1	30	70	
			CULG	0051.0	0051.0	III	B	2	28	150	
			CULG	0123.0	0124.0	III	G	1	30	160	
			CULG	0458.0	0458.0	III	B	2	30	130	
	0643	1541	ONDR								
	0630	1551	POTS	0645 E	1536 U	I	S,C,DC	2	110U	225U	
			CULG	0647.0	0647.0	III	B	2	50	170	
			SVTO	0647.0	0647.0	III		1	70U	85U	
			POTS	0647.2	0647.5	III	G	3	75	170U	
	0706	1200	IZMI	0647.3	0647.6	III	G,U	2	40	95U	
	0700	1615	BLEN								
			IZMI	0706.0E	1200.0D	I	S	2	120	270X	
			POTS	0740	1534	III	N	1	110U	170U	
			CULG	0741.0	0742.0	III	G	1	25	150	
			SVTO	0741.0	0742.0	III		1	35	85	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
06		IZMI	0741.1	0742.3	III	G	2	25X	175	
		POTS	0741.1	0741.4	III	B	2	40X	170U	
		IZMI	0815.6	0816.6	III	G	2	55	180	
		POTS	0815.6	0816.4	III	G	2	110U	170U	
		HIRA	0820.0	0821.0	III	B	1	80	200	
		SVTO	0820.0	0820.0	III		1	35	85	
		IZMI	0820.3	0820.7	III	GG	2	40	205	
		POTS	0820.4	0821.2	III	G,U	3	70	170U	
		IZMI	0840.3	0840.8	II	G	2	45	180	
		POTS	0840.3	0840.7	III	G	2	110U	170U	
		IZMI	0848.2	0848.4	III	G	2	55	135	
		POTS	0848.2	0848.3	III	B	3	110U	140	
		IZMI	0906.0U	1126.0U	III	N	1	45	135	
		POTS	0913.8	0913.9	III	B	2	110U	170U	
		IZMI	0956.2	0956.4	III	B	2	55	120	
		POTS	0956.2	0956.5	III	B	2	55	150	
		IZMI	1001.9	1003.8	III	GG	2	25	140	
		POTS	1001.9	1002.1	III	B	1	40X	140	
		POTS	1002.5	1003.8	III	G	2	40X	170U	
		SVTO	1003.0	1003.0	III		1	35	75	
		IZMI	1016.4	1016.7	III	B	2	75	180	
		POTS	1016.4	1016.6	III	G	2	80	170U	
		IZMI	1102.4	1102.8	III	B	2	35	120	
		POTS	1102.4	1102.9	III	G	2	40X	170U	
		SVTO	1127.0	1128.0	III		1	35	84	
		POTS	1127.5	1128.8	III	G	3	40X	300U	
		IZMI	1127.7	1128.6	III	G	2	45	230	
		IZMI	1140.6	1140.8	III	G	2	200	270X	
		POTS	1140.8	1140.9	III	B	2	110U	275U	
		POTS	1206.8	1207.2	III	B	3	40X	170U	
		SGMR	1210.0	1212.0	III		3	30	80	
		SVTO	1210.0	1212.0	V		3	35	85	
		POTS	1210.4	1211.3	III	G	3	40X	325U	
		POTS	1211.3	1212.2	V		3	40X	70	
		POTS	1236.5	1236.9	III	G	1	40X	120	
		POTS	1331.4	1331.5	III	B	2	110U	170U	
		POTS	1336.2	1336.4	III	G	2	110U	170U	
		POTS	1515.1	1515.4	III	G	1	40X	150	
		PALE	1759.0	1759.0	III		1	25	55	
		SGMR	1759.0	1759.0	III		1	30	55	
		PALE	1904.0	1905.0	III		1	25	42	
	2030	CULG	2035.0	2037.0	III	G	1	20	150	
		PALE	2036.0	2037.0	III		1	25	45	
		CULG	2116.0	2116.0	III	B	1	50	180	
		CULG	2132.0	2135.0	III	G	1	18	70	
		PALE	2254.0	2303.0	III		3	30	75	
		CULG	2255.0	2255.0	III	B	1	18	60	
		CULG	2258.0	2259.0	III	G	1	40	280	
	2058	HIRA	2300.0	2303.0	III	G	3	30	300	
		CULG	2301.0	2302.0	III	G	3	23	290	
		CULG	2323.0	2325.0	III	G	3	40	460	
		HIRA	2323.0	2324.0	III	G	3	50	500	
		PALE	2323.0	2323.0	III		1	30	65	
07	0000	CULG	0200.0	0203.0	III	G	2	25	160	
		PALE	0201.0	0202.0	III		2	35	75	
	0000	HIRA	0201.0	0202.0	III	B	1	40	150	
		CULG	0247.0	0248.0	III	G	1	60	240	
		HIRA	0247.0	0248.0	III	B	1	100	250	
		CULG	0305.0	0306.0	III	G	2	28	180	
		HIRA	0305.0	0306.0	III	G	1	40	180	
		PALE	0305.0	0305.0	III		1	40	65	
		HIRA	0317.0	0324.0	III	G	1	60	270	
		CULG	0318.0	0323.0	III	G	1	20	270	
		CULG	0419.0	0425.0	III	G	1	18	250	
		HIRA	0419.0	0421.0	III	G	1	25X	240	
		CULG	0455.0	0745.0D	III	N	1	20	180	
		HIRA	0525.0	0527.0	III	G	1	30	200	
		SVTO	0625.0	0637.0	III		1	35	85	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
07	0630	1551	POTS	0632	1433	III	N	1	40X	90U	
			POTS	0642	1539 U	I	S,C,DC	2	110U	250U	
			POTS	0645	1520	III	N	1	110U	170U	
	0658	1200	IZMI	0658.0E	1200.0D	I	N	1	200	230	
			IZMI	0707.7	0707.9	III	G	1	50	85	
			IZMI	0713.0U	1200.0D	III	N	1	45	95	
			IZMI	0715.2	0715.6	III	G	2	80	180	
			POTS	0715.3	0715.8	III	G	2	110U	170U	
			IZMI	0718.2	0718.6	III	G	2	55	230	
			POTS	0718.3	0718.5	III	G	2	40X	170U	
			SVTO	0722.0	0725.0	III		1	35	85	
			POTS	0722.4	0726.1	III	GG	3	40X	170U	
			IZMI	0722.5	0724.2	III	GG	2	40	215	
			CULG	0723.0	0724.0	III	G	3	18	180	
			HIRA	0723.0	0725.0	III	G	2	30	160	
			IZMI	0723.2	0725.1	CONT		2	25X	100	
			POTS	0723.8	0824.6	V		2	110U	120	
			POTS	0723.8U	0725.1U	V		3	40X	70	
			POTS	0749.5	0749.6	III	B	2	110U	160	
			SVTO	0751.0	0752.0	III		1	35	85	
			IZMI	0751.6	0752.8	III	GG	2	25X	200	
			POTS	0751.7	0752.8	III	GG	3	40X	170U	
			HIRA	0752.0	0753.0	III	B	1	50	160	
			IZMI	0821.3	0821.4	III	B	2	45	175	
			POTS	0821.3	0821.5	III	G	3	40X	170U	
			IZMI	0828.9	0829.1	III	B	2	45	145	
			POTS	0829.0	0829.1	III	B	2	40X	145	
			IZMI	0830.3	0836.2	III	S	1	45	150	
			POTS	0832.7	0833.1	III	G	2	110U	150	
			POTS	0835.6	0836.1	III	G	2	110U	160	
			SVTO	0907.0	0908.0	III		1	35	79	
			IZMI	0907.8	0908.2	III	G	2	40	90	
			POTS	0907.9	0908.3	III	G	2	40X	80	
			POTS	0947.4	0947.7	III	B	2	110U	170U	
			IZMI	0952.8	0953.3	III	G	2	45	95	
			POTS	0952.9	0953.4	III	B	2	40X	70	
			IZMI	1024.2	1026.1	III	G	1	45	160	
			POTS	1024.5	1026.1	III	G,U	2	110U	170U	
			IZMI	1043.7	1046.3	III	G	2	30	140	
			POTS	1043.8	1045.7	III	G	2	40X	170U	
			SVTO	1045.0	1045.0	III		1	35	74	
			IZMI	1057.7	1058.9	III	GG	2	35	150	
			POTS	1057.8	1102.3	III	G	2	40X	170U	
			IZMI	1101.3	1102.5	III	GG	2	45	90	
			SVTO	1109.0	1109.0	III		1	35U	51U	
			POTS	1114.3	1114.4	III	B	2	110U	170U	
			POTS	1119.5	1119.8	III	G	2	40X	170U	
			IZMI	1137.2	1137.4	III	G	2	40	180	
			POTS	1137.2	1137.6	III	G	3	40X	250U	
			POTS	1200.3	1200.4	III	B	2	110U	145	
			POTS	1202.2	1202.6	III	G	2	40X	170U	
			POTS	1227.0	1235.6	III	GG,RS	3	40X	170U	
	0641	1542	ONDR	1228.3	1231.3	DCIM	GG	1	890	1595	
	0700	1620	BLEN	1228.7	1229.3	III	GG,RS	2	1000X	1600	
			POTS	1300.9	1301.1	III	B	2	110U	145	
			POTS	1309.2	1310.5	III	G	3	40X	170U	
			POTS	1323.8	1324.2	III	G	2	40X	170U	
			POTS	1340.2	1348.2	III	GG	2	40X	170U	
			POTS	1411.7	1412.7	III	G	2	40X	55	
			POTS	1425.3	1427.8U	II	SH,H	3	110U	170U	
			POTS	1425.8U	1427.6	II	F	2	40X	90U	
			SGMR	1426.0	1427.0	III		1	58	80	
			SVTO	1426.0	1427.0	III		1	38	85	
			POTS	1431.4	1432.1	III	G	2	110U	170U	
			POTS	1508.0	1511.7	III	G	2	40X	170U	
			POTS	1521.1	1522.3	III	G	3	110U	170U	
			SGMR	1602.0	1607.0	III		2	30	80	
			SVTO	1602.0	1603.0	III		1	35	85	
			BLEN	1602.2	1605.0	DCIM	C	2	1300	2800X	

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07		SGMR	1612.0	1616.0	V		1	30	72	
		SVTO	1612.0	1615.0	V		1	35	78	
		PALE	1856.0	1856.0	III		1	35	55	
		PALE	1908.0	1910.0	III		1	25	70	
		PALE	2039.0	2039.0	III		1	25	55	
2030	2400	CULG	2039.0	2039.0	III	B	1	20	180	
		CULG	2106.0	2113.0	III	G	1	20	180	
2057	2400	HIRA	2106.0	2113.0	III	G	1	30	180	
		PALE	2112.0	2114.0	V		2	25	55	
		SGMR	2112.0	2114.0	V		2	30	65	
		CULG	2113.0	2113.0	V		2	20	90	
		CULG	2207.0	2209.0	III	G	2	20	170	
		HIRA	2207.0	2209.0	III	G	1	50	130	
		PALE	2207.0	2208.0	III		1	25	75	
		CULG	2212.0	2223.0	III	GG	1	30	90	
		CULG	2252.0	2254.0	III	G	2	18	150	
		HIRA	2252.0	2253.0	III	B	2	25X	140	
		PALE	2252.0	2253.0	III		2	25	75	
		CULG	2339.0	2341.0	III	G	3	18X	180	
		HIRA	2339.0	2340.0	III	B	3	25X	180	
		PALE	2339.0	2341.0	V		3	25	75	
		CULG	2346.0	2347.0	III	G	1	50	180	
08		PALE	0024.0	0026.0	III		2	25	75	
0000	0841	HIRA	0024.0	0025.0	III	B	1	25X	140	
0000	0745	CULG	0025.0	0026.0	III	G	2	18X	160	
		CULG	0047.0	0048.0	III	G	1	60	150	
		HIRA	0244.0	0245.0	III	B	1	80	250	
		CULG	0500.0	0500.0	III	B	1	40	160	
		CULG	0628.0	0630.0	III	G	1	20	170	
		HIRA	0628.0	0630.0	III	G	1	30	170	
		SVTO	0629.0	0630.0	III		1	35	85	
0639	1545	ONDR								
0630	1553	POTS	0702.9	0703.1	III	B	1	110U	140	
0646	1200	IZMI	0706.8	0707.8	III	G	2	40	260	
		POTS	0706.9	0707.7	III	G,U	2	110U	170U	
		CULG	0707.0	0711.0	III	G	1	25	180	
		POTS	0710	1442	III	N	1	110U	170U	
		IZMI	0710.6	0710.9	III	G	2	45	150	
		POTS	0710.7	0711.3	III	G	2	110U	150	
		POTS	0711	1500	I	S	1	110U	170U	
		IZMI	0718.4	0718.5	III	G	2	105	255	
		POTS	0718.4	0719.7	III	G	2	40X	170U	
		CULG	0719.0	0719.0	III	B	1	25	180	
		SVTO	0719.0	0719.0	III		1	45	64	
		IZMI	0719.1	0719.6	III	G	2	45	270X	
		IZMI	0719.4	0719.6	V		2	45	70	
		CULG	0737.0	0740.0	III	GG	3	23	180	
		HIRA	0737.0	0740.0	III	G	1	40	340	
		IZMI	0737.1	0740.0	III	GG	2	25X	270X	
		POTS	0737.1	0746.1	III	GG	3	40X	170U	
		IZMI	0737.5	0740.0	V	G	2	45	150	
		IZMI	0745.6	0746.1	III	G	2	55	215	
		IZMI	0856.2	0856.4	III	B	2	40	65	
		IZMI	0858.0	0858.1	III	B	1	55	145	
		POTS	0858.0	0858.1	III	B	2	110U	170U	
		POTS	0903.8	0908.4	III	G	3	40X	170U	
		IZMI	0906.0	0906.5	III	G	2	45	215	
		SVTO	0907.0	0908.0	III		1	35	85	
		IZMI	0907.8	0908.5	III	G	2	35	270X	
		POTS	0908.4	0909.0	V		3	40X	55	
		IZMI	0917.1	0917.2	III	B	1	40	65	
		IZMI	0925.0	0928.3	III	GG	2	30	165	
		SVTO	0925.0	0925.0	III		1	35	74	
		POTS	0925.1	0926.8	III	GG	2	40X	170U	
		POTS	0925.5	0926.1	V		2	40X	60	
		POTS	0947.0	0957.2	III	G,RS	2	40X	170U	
		IZMI	0952.0	0952.3	III	G	2	35	245	
		IZMI	0953.4	0953.7	III	G	2	43	230	

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OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
08		IZMI	0956.6	0957.2	III	GG	2	40	90	
		IZMI	1031.1	1035.0	I	GG	2	200	270X	
		SVTO	1033.0	1034.0	III		1	37	74	
		IZMI	1033.8	1034.7	III	GG	2	35	270X	
		POTS	1033.8	1036.7	III	GG	3	40X	250U	
		IZMI	1036.5	1036.7	III	G	2	55	230	
		IZMI	1038.6	1038.6	III	B	1	45	65	
		POTS	1042	1553	III	N	1	40X	90U	
		IZMI	1042.5	1044.6	III	GG	2	30	95	
		POTS	1050.6	1051.6	III	G	2	40X	300U	
		IZMI	1050.8	1051.7	III	G	2	40	270X	
		IZMI	1130.0	1130.2	III	B	2	45	145	
		SVTO	1144.0	1157.0	III	N	1	35	85	
		POTS	1144.3	1157.1	III	GG	3	40X	250U	
		IZMI	1144.4	1144.8	III	G	2	30	230	
		IZMI	1148.8	1149.1	III	G	2	35	140	
		IZMI	1156.1	1157.0	III	GG	2	30	270X	
		POTS	1304.0	1304.6	III	G	2	40X	170U	
		SGMR	1304.0	1304.0	III		1	38	46	
		SVTO	1304.0	1304.0	III		1	35	48	
		POTS	1312.9	1313.2	III	G	2	110U	170U	
		SVTO	1322.0	1338.0	III	N	2	35	85	
		SGMR	1323.0	1325.0	V		3	30	80	
		POTS	1323.3	1324.6	III	GG	2	40X	170U	
		POTS	1324.2	1325.1	V		3	110U	120	
		POTS	1324.4	1325.5	V		3	40X	70	
		POTS	1335.9	1339.0	III	GG	2	40X	170U	
		POTS	1510.7	1511.1	III	G	2	110U	170U	
		SVTO	1608.0	1608.0	III		1	56	85	
0650	1620	BLEN	1608.4	1609.3	DCIM	C	1	1100	1500	
		PALE	1752.0	1752.0	III		1	25	75	
		SGMR	1752.0	1753.0	III		2	30	80	
		PALE	2019.0	2027.0	III		1	25	60	
		PALE	2128.0	2130.0	III		3	25	75	
		SGMR	2128.0	2130.0	III		2	30	80	
2000	2400	CULG	2128.0	2131.0	III	G	3	18	370	
2055	2400	HIRA	2128.0	2130.0	III	G	3	30	400	
		CULG	2203.0	2203.0	III	B	1	30	170	
		CULG	2215.0	2215.0	III	B	1	23	170	
		CULG	2230.0	2233.0	III	G	2	18X	180	
		HIRA	2230.0	2232.0	III	G	2	25X	250	
		PALE	2230.0	2233.0	III		3	25	70	
		CULG	2238.0	2242.0	III	G	3	18X	300	
		HIRA	2238.0	2241.0	III	G	2	25X	320	
		PALE	2238.0	2241.0	III		3	25	75	
		CULG	2353.0	2355.0	III	G	1	30	180	
		HIRA	2353.0	2355.0	III	G	1	50	170	
09		PALE	0011.0	0012.0	III		2	25	75	
0000	0745	CULG	0011.0	0011.0	III	B	2	23	180	
0000	0842	HIRA	0011.0	0012.0	III	B	1	30	170	
		PALE	0027.0	0029.0	III		3	25	75	
		HIRA	0029.0	0030.0	III	B	1	25X	220	
		CULG	0128.0	0128.0	III	G	1	70	170	
		CULG	0157.0	0157.0	III	B	1	23	120	
		HIRA	0200.0	0201.0	III	G	1	40	220	
		PALE	0220.0	0220.0	III		1	30	75	
		CULG	0252.0	0253.0	III	G	1	20	170	
		HIRA	0252.0	0253.0	III	G	1	40	180	
		PALE	0252.0	0257.0	III		1	35	55	
		CULG	0345.0	0345.0	III	B	2	18	180	
		HIRA	0345.0	0351.0	III	G	2	30	300	
		CULG	0348.0	0351.0	III	G	1	23	180	
		HIRA	0429.0	0432.0	III	G	1	30	250	
		CULG	0432.0	0434.0	III	G	2	23	160	
		CULG	0442.0	0443.0	III	G	1	23	170	
		CULG	0448.0	0448.0	III	B	1	23	170	
		CULG	0500.0	0502.0	III	G	1	23	150	
		CULG	0529.0	0531.0	III	G	1	60	270	

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09		HIRA	0529.0	0531.0	III	G	1	110	170	
		CULG	0545.0	0545.0	III	G	1	35	160	
		HIRA	0559.0	0604.0	III	G	1	30	260	
		LEAR	0559.0	0611.0	III	N	2	30	80	
		SVTO	0559.0	0604.0	III		1	35	85	
		CULG	0600.0	0600.0	III	B	3	23	270	
		CULG	0603.0	0603.0	III	B	2	18	170	
		SVTO	0609.0	0611.0	III		1	35	85	
		CULG	0610.0	0612.0	III	G	2	18	180	
		HIRA	0610.0	0611.0	III	G	1	30	270	
0637	1546	ONDR								
0630	1553	POTS	0638	1543	I	S	1	110U	250U	
0645	1620	BLEN								
		POTS	0645.3	0645.5	III	G	1	110U	170U	
		IZMI	0656.3	0657.8	III	GG	2	45	120	
		POTS	0656.3	0658.0	III	G	3	110U	170U	
0700	1200	IZMI	0706.0U	1045.0U	I	S	2	200	270	
		HIRA	0711.0	0712.0	III	B	1	120	250	
		IZMI	0711.2	0711.8	III	GG	2	135	270X	
		POTS	0711.4	0712.0	III	G	3	110U	170U	
		IZMI	0714.7	0715.6	III	G	2	190	270X	
		HIRA	0719.0	0720.0	III	B	1	30	220	
		LEAR	0727.0	0729.0	III		2	30	80	
		IZMI	0727.7	0728.4	III	G	2	45	260	
		POTS	0727.7	0729.6	III	G,U	3	40X	170U	
		CULG	0728.0	0730.0	III	G	3	23	140	
		SVTO	0728.0	0729.0	III		1	35	85	
		IZMI	0728.8	0729.5	III	GG	2	25	270X	
		IZMI	0729.0	0729.5	V	G	2	45	95	
		IZMI	0736.4	0736.9	III	G	2	210	270X	
		POTS	0743	1507	III	N	1	110U	170U	
		IZMI	0745.4	0745.5	III	B	1	200	270X	
		IZMI	0748.0	0748.1	III	B	1	215	270X	
		IZMI	0806.4	0806.6	III	B	1	50	95	
		IZMI	0812.7	0812.9	III	G	2	190	270X	
		POTS	0812.7	0821.3	III	G	2	110U	170U	
		IZMI	0820.7	0821.2	III	G	2	200	270X	
		IZMI	0829.1	0830.4	III	G	1	40	110	
		IZMI	0857.1	0857.3	III	G	2	200	270X	
		IZMI	0909.5	0910.1	III	GG	2	60	270X	
		POTS	0909.7	0928.0	III	GG	3	40X	250U	
		IZMI	0911.3	0911.5	III	B,HARM	2	50	150	
		IZMI	0920.8	0921.1	III	G	2	50	270X	
		IZMI	0922.7	0924.3	III	GG	2	30	180	
		LEAR	0925.0	0944.0	III	N	2	30	80	
		IZMI	0925.1	0926.0	III	GG	2	45	180	
		SVTO	0926.0	1014.0	III	N	1	35	85	
		IZMI	0926.4	0927.8	III	GG	2	25X	270X	
		IZMI	0926.8	0928.2	V	G	2	45	65	
		POTS	0926.8	0927.2	V		2	40X	70	
		IZMI	0930.5	0930.8	III	G	1	240	270X	
		POTS	0933.4	0944.9	III	GG	2	40X	170U	
		IZMI	0933.6	0934.6	III	G	2	45	245	
		IZMI	0941.8	0942.5	III	G,FS	2	40	180	
		IZMI	0944.1	0944.9	III	GG	2	30	215	
		IZMI	1008.6	1009.5	III	G	2	45	145	
		POTS	1009.5	1022.1	III	GG,RS,U	3	40X	300U	
		IZMI	1010.7	1011.7	III	G	2	35	270	
		IZMI	1013.1	1015.0	III	G,FS	2	40	270	
		IZMI	1016.7	1018.3	III	G,FS	2	35	270	
		IZMI	1019.6	1021.5	III	GG	3	25X	270X	
		LEAR	1020.0	1020.0	III		2	30	80	
		SVTO	1020.0	1021.0	III		2	35	85	
		IZMI	1020.4	1020.8	V	G	2	25X	65	
		IZMI	1055.6	1056.0	III	G	2	130	250	
		POTS	1055.8	1056.1	III	G	3	125	250U	
		IZMI	1124.8	1125.1	III	G	2	45	170	
		POTS	1124.8	1138.7	III	G	2	40X	250U	
		IZMI	1134.9	1138.6	III	G	2	30	260	

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09			IZMI	1136.1	1137.5	III	GG	2	135	270X	
			SVTO	1138.0	1138.0	III		1	35	77	
			IZMI	1138.1	1138.6	III	G	2	30	260	
			IZMI	1139.8	1139.9	III	B	1	45	95	
			IZMI	1150.3	1150.4	III	B	1	45	65	
			POTS	1249.3	1252.1	III	G	2	40X	170U	
			POTS	1304.8	1310.9	III	GG	2	50	170U	
			SVTO	1333.0	1339.0	V		2	35	85	
			POTS	1333.4	1346.6	III	GG,RS	3	40X	170U	
			POTS	1412.6	1421.8	III	GG	3	40X	170U	
			SVTO	1413.0	1415.0	III		1	35	85	
			POTS	1504.3	1505.4	III	G	3	110U	170U	
			POTS	1518.6	1521.1	III	G	2	110U	170U	
			PALE	1806.0	1806.0	III		1	30	65	
			PALE	1834.0	1837.0	III		3	25	75	
			PALE	2025.0	2025.0	III		1	25	50	
	2030	2400	CULG	2059.0	2229.0	III	N	1	20	180	
			SGMR	2111.0	2111.0	III		1	30	70	
	2053	2400	HIRA	2111.0	2112.0	III	B	1	30	100	
			HIRA	2122.0	2123.0	III	B	1	40	180	
			HIRA	2156.0	2157.0	III	B	1	60	170	
			CULG	2204.0	2206.0	III	G	2	20	180	
			HIRA	2205.0	2206.0	III	B	2	40	220	
10	0000	0843	HIRA								
			LEAR	0359.0	0359.0	III		1	30	71	
	0000	0745	CULG	0359.0	0359.0	III	B	1	23	140	
	0645	1620	BLEN								
	0630	1526	POTS	0828	1526 U	I	S,W	1	110U	140	
	0634	1546	ONDR	0908.1	0908.5	DCIM	G	1	2215	4265	
			IZMI	0934.3	0934.5	III	B	2	45	65	
			IZMI	0936.4	0937.1	III	G	1	50	65	
			POTS	1310.8	1310.9	III	B	1	110U	170U	
			SGMR	1550.0	1550.0	III		1	30	55	
			SVTO	1550.0	1550.0	III		1	37	48	
			PALE	1739.0	1744.0	III		2	25	75	
			SGMR	1739.0	1744.0	III		2	30	70	
	2052	2400	HIRA								
	2030	2400	CULG	2344.0	2351.0	III	G	1	30	120	
			LEAR	2345.0	2350.0	III		1	30	80	
11	0000	0745	CULG								
	0000	0844	HIRA								
	0702	1201	IZMI	0829.3	0834.5	III	GG	1	200	270X	
	0632	1549	ONDR	0923.0	0927.0	DCIM	G	1	2360	4500X	
			IZMI	0927.7	0931.8	III	GG	1	200	270X	
	0634	1620	POTS	0940.0	0944.0	III	G	1	110U	170U	
			IZMI	1023.8	1030.5	III	G	1	200	270X	
			ONDR	1027.3	1028.3	DCIM	G	1	800X	1565	
			ONDR	1157.3	1158.5	DCIM	G	1	800X	2000X	
			IZMI	1157.4	1159.6	III	G,C	1	200	270X	
	0640	1625	BLEN	1157.6	1159.0	DCIM	C	2	1100	2800X	
			POTS	1157.8	1200.5	III	G	1	200U	300U	
			IZMI	1200.2	1200.6	III	G	2	200	270X	
			POTS	1220.4	1220.8	III	G	2	40X	170U	
			SGMR	1351.0	1352.0	III		1	50	80	
			SVTO	1351.0	1352.0	III		1	55	83	
			POTS	1351.4	1352.4	III	G	3	40X	170U	
			POTS	1432.6	1432.8	III	G	2	110U	160	
			POTS	1442.1	1442.2	III	B	2	110U	145	
			POTS	1506.7	1507.5	III	GG	2	110U	170U	
			POTS	1511	1521	I	S	1	130	170U	
	2050	2400	HIRA								
	2030	2400	CULG	2151.0	2152.0	III	G	1	18	90	
12	0000	0844	HIRA								
	0000	0745	CULG	0020.0	0152.0	I	S	1	60	150	
			CULG	0031.0	0032.0	III	G	1	28	140	
			LEAR	0031.0	0031.0	III		2	30	80	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
12			PALE	0031.0	0032.0	III		1	30	55	
			LEAR	0032.0	0137.0	CONT		1	30	80	
			LEAR	0134.0	0134.0	III		2	30	80	
			LEAR	0315.0	0316.0	III		1	30	50	
	0607	1613	POTS	0628 E	1552 U	I	S,C,DC	2	110U	300U	
	0646	1200	IZMI	0646.0E	0922.0U	I	S	1	50	250	
			CULG	0700.0	0726.0	III	N	1	30	170	
			IZMI	0706.0U	0731.0	III	N	1	45	90	
			IZMI	0722.7	0722.9	III	G	1	200	270X	
	0630	1552	ONDR	0903.0	0906.3	DCIM	G	1	2575	4500X	
			IZMI	0922.0	1200.0D	I	S	2	60	270X	
	0930	1625	BLEN								
			POTS	1028.0	1028.1	III	B	2	110U	170U	
			IZMI	1051.0	1200.0D	III	N	1	45	95	
			POTS	1209.7	1211.5	III	G	3	110U	170U	
			POTS	1249.8	1250.0	III	B	2	110U	170U	
			ONDR	1417.3	1418.1	DCIM	G	1	800X	1045	
			POTS	1418.4	1418.6	III	G	2	110U	170U	
			POTS	1523.3	1528.0	III	G	2	110U	170U	
			POTS	1543.8	1545.9	III	G	2	110U	170U	
			SGMR	1749.0	1750.0	III		1	30	70	
	2049	2400	HIRA								
	2030	2400	CULG	2300.0	2302.0	III	G	1	20	80	
			CULG	2317.0	2317.0	III	B	1	30	90	
13	0000	0845	HIRA								
			LEAR	0041.0	0042.0	III		1	38	55	
			LEAR	0100.0	0100.0	III		1	30	70	
			LEAR	0358.0	0358.0	III		1	30	65	
	0000	0745	CULG	0358.0	0402.0	III	G	1	18	180	
			CULG	0601.0	0602.0	III	G	1	25	140	
			LEAR	0601.0	0601.0	III		2	30	80	
			SVTO	0601.0	0601.0	III		1	37	82	
	0607	1613	POTS	0717.1	0723.1	III	GG,RS	2	110U	170U	
	0700	1200	IZMI	0717.2	0718.2	III	G	2	140	245	
			POTS	0730.0	0731.1	III	G	2	110U	170U	
			IZMI	0730.5	0731.1	III	G	2	45	215	
			CULG	0731.0	0731.0	III	B	1	45	160	
			IZMI	0736.6	0736.7	III	B	1	55	65	
			IZMI	0812.0	0817.1	III	GG	1	200	270X	
			POTS	0923.4	0937.1	III	G	2	110U	170U	
	0635	1630	BLEN	0930.0	0935.0	DCIM	C	1	1800	2800X	
	0627	1552	ONDR	0930.4	0935.0	DCIM	G	1	2090	4500X	
			IZMI	0956.0	1000.0	III	GG	2	55	270	
			POTS	0956.0	1000.2	III	GG,U	3	40X	170U	
			SVTO	1000.0	1000.0	III		1	35	43	
			POTS	1006.8	1006.9	III	B	1	120	170U	
			IZMI	1019.1	1019.3	III	G	2	120	265	
			POTS	1019.1	1021.1	III	G	2	110U	170U	
			IZMI	1021.0	1021.1	III	B	2	125	215	
			BLEN	1040.0	1045.0	III	GG	2	1700	2400	
			ONDR	1040.1	1057.1	DCIM	G	1	2000	4500X	
			POTS	1053	1555 U	I	S	2	110U	250U	
			IZMI	1123.1	1127.6	III	GG	2	110	175	
			POTS	1123.1	1128.1	III	GG	2	110U	170U	
			POTS	1157.7	1158.3	DCIM		2	400U	550	
			IZMI	1157.8	1159.1	III	GG	2	200	270X	
			POTS	1204.6	1204.7	III	B	1	110U	150	
			POTS	1317.7	1318.3	III	G	3	150	250U	
			POTS	1437.0	1439.0	III	G,U	3	110U	170U	
			POTS	1453.6	1453.7	III	B	2	135	170U	
	2030	2400	CULG	2306.0	2307.0	III	G	1	40	120	
			CULG	2309.0	2316.0	III	GG	3	18	180	
			LEAR	2310.0	2314.0	III		2	30	80	
	2048	2400	HIRA	2310.0	2314.0	III	G	2	30	200	
			PALE	2311.0	2314.0	III		1	25	75	
			CULG	2317.0	2320.0	III	G	1	35	150	
			HIRA	2318.0	2320.0	III	G	1	40	140	
			LEAR	2318.0	2319.0	III		1	30	80	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
13			HIRA	2333.0	2334.0	III	B	1	120	320	
			HIRA	2348.0	2349.0	III	B	1	120	250	
			CULG	2356.0	2400.0D	III	G	1	40	150	
			LEAR	2358.0	0003.0	III		1	50	80	
14	0000	0745	CULG	0000.0E	0005.0	III	G	1	40	150	
			CULG	0448.0	0448.0	III	B	1	30	80	
			CULG	0552.0	0648.0	I	S	1	90	160	
			CULG	0608.0	0625.0	III	N	1	23	90	
			SVTO	0615.0	0625.0	III		1	35	59	
			LEAR	0616.0	0625.0	III		2	30	65	
	0607	1614	POTS	0623 E	1557 U	I	S,C,DC	2	110U	250U	
	0630	1630	BLEN								
			IZMI	0645.7	0646.0	III	G	2	45	95	
	0646	1201	IZMI	0646.0U	1011.0U	I	N	1	200	260	
			SVTO	0651.0	0701.0	III	N	1	48	78	
			IZMI	0652.7	0654.1	III	G	2	80	115	
			POTS	0716.2	0717.0	UNCLF		2	110U	170U	
			IZMI	0740.8	0741.9	III	GG	2	200	270X	
			IZMI	0744.9	0745.2	III	G	3	185	270X	
	0000	0846	HIRA	0746.0	0748.0	III	G	1	130	360	
			IZMI	0746.3	0749.4	III	GG	2	145	270X	
			IZMI	0752.7	0753.4	III	G	2	185	270X	
			IZMI	0823.3	0823.5	III	B	1	60	95	
			IZMI	0854.8	0854.9	III	B	1	190	270X	
			IZMI	0859.7	0900.0	III	B	2	70	115	
			POTS	0901.7	0901.9	III	G	2	110U	170U	
			IZMI	0901.8	0901.9	III	B	1	75	95	
			IZMI	0903.5	0904.0	III	G,RS	2	200	245	
			IZMI	1019.7	1020.1	III	G,HARM	2	45	145	
			POTS	1019.7	1022.1	III	G	2	40X	170U	
			IZMI	1021.0	1022.1	III	GG	2	80	165	
			IZMI	1051.6	1052.2	III	GG	2	30	160	
			POTS	1051.6	1056.1	III	G	2	40X	170U	
			IZMI	1056.0	1056.2	III	G	2	55	135	
	0625	1554	ONDR	1110.5	1112.2	DCIM	G,W	1	1030	2000X	
			IZMI	1110.8	1111.5	III	G	1	205	270X	
			IZMI	1113.3	1114.2	III	G,HARM	2	80	270X	
			IZMI	1113.4	1115.0	II	HARM	2	95	270	
			POTS	1113.4	1115.3	UNCLF		3	80	280U	
			IZMI	1136.2	1136.4	III	G	1	200	270X	
			IZMI	1154.1	1154.4	III	G	2	45	95	
			POTS	1154.1	1201.0	III	G	2	40X	120	
			IZMI	1200.5	1200.7	III	B	2	45	95	
			SVTO	1236.0	1237.0	III		1	36	43	
			PALE	1936.0	1936.0	III		1	25	60	
			PALE	2007.0	2007.0	III		2	25	60	
			SGMR	2007.0	2007.0	III		1	30	80	
	2046	2400	HIRA								
			PALE	2101.0	2102.0	III		1	25	45	
	2030	2400	CULG	2102.0	2102.0	III	B	1	30	90	
			CULG	2130.0	2130.0	III	B	1	30	90	
			CULG	2144.0	2147.0	III	G	1	28	180	
			CULG	2321.0	2321.0	III	B	1	30	90	
			LEAR	2321.0	2321.0	III		1	35	80	
15	0000	0847	HIRA								
			LEAR	0056.0	0056.0	III		1	63	75	
	0000	0745	CULG	0056.0	0056.0	III	B	1	60	280	
			CULG	0343.0	0344.0	III	G	1	30	330	
			CULG	0423.0	0424.0	III	G	1	25	180	
			LEAR	0423.0	0424.0	III		1	30	65	
	0607	1203	POTS	0629.1	0629.2	III	B	2	120	160	
	0630	0900	BLEN								
			POTS	0656	1203 U	I	S	1	110U	170U	
			CULG	0700.0	0701.0	III	G	1	150	350	
			POTS	0700.6	0701.3	III	G	2	145	170U	
			LEAR	0728.0	0729.0	III		1	30	65	
	0728	1200	IZMI	0728.0E	1100.0U	I	S	1	190	245	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
15		POTS	0728.4	0729.0	III	G	2	110U	170U	
		IZMI	0728.8	0729.0	III	G,HARM	2	45	170	
		CULG	0729.0	0729.0	III	B	1	30	150	
		IZMI	0729.9	0730.0	III	B	1	75	95	
		POTS	0738.6	0738.8	III	G	2	120	170U	
		IZMI	0746.5	0747.4	III	G	1	45	95	
		POTS	0842.7	0844.4	III	G	3	40X	170U	
		IZMI	0843.0	0844.4	III	G	2	40	215	
		LEAR	0843.0	0844.0	III		1	35	65	
		SVTO	0843.0	0843.0	III		1	36	45	
		POTS	0905.0	0905.8	III	G	2	110U	170U	
		IZMI	1107.5	1107.9	III	G	1	45	95	
		IZMI	1124.7	1125.2	III	G	2	105	270	
		POTS	1124.7	1126.6	III	G	2	110U	250U	
		SGMR	1219.0	1221.0	III		1	35	80	
		SVTO	1219.0	1221.0	V		2	35	85	
	0623 1557	ONDR	1219.0	1222.4	DCIM		1	2000X	4500X	
		ONDR	1219.2	1227.0	DCIM	GG	1	800X	2000X	
	1238 1615	POTS	1238 E	1600 U	I	S	2	110U	170U	
		POTS	1243.2	1243.9	III	G	3	110U	170U	
		POTS	1428.1	1428.3	III	G	2	110U	170U	
		POTS	1457.3	1459.3	III	GG	3	110U	170U	
		POTS	1518.1	1519.1	III	GG	2	110U	170U	
		POTS	1557.5	1559.8	III	G	2	110U	170U	
	2045 2400	HIRA								
	2030 2400	CULG	2113.0	2113.0	III	B	1	100	180	
		CULG	2238.0	2238.0	III	G	1	35	80	
16	0000 0745	CULG	0059.0	0125.0	III	N	1	28	180	
		CULG	0201.0	0205.0	III	G	1	30	180	
		LEAR	0202.0	0204.0	III		2	30	80	
		PALE	0202.0	0204.0	III		1	35	60	
		CULG	0241.0	0241.0	III	B	1	40	260	
		LEAR	0241.0	0241.0	III		1	47	65	
		PALE	0241.0	0241.0	III		1	35	65	
		PALE	0322.0	0323.0	III		1	35	75	
		CULG	0323.0	0323.0	III	B	2	30	180	
	0000 0848	HIRA	0323.0	0324.0	III	B	1	50	200	
		LEAR	0342.0	0343.0	III		1	30	55	
		CULG	0343.0	0428.0	III	N	1	25	160	
		LEAR	0403.0	0404.0	III		1	30	60	
		LEAR	0420.0	0425.0	III		3	30	80	
		CULG	0423.0	0425.0	III	G	3	18	400	
		HIRA	0423.0	0424.0	III	B	3	25X	360	
		PALE	0423.0	0423.0	III		1	35	75	
		CULG	0555.0	0555.0	III	B	1	28	180	
		LEAR	0555.0	0555.0	III		2	30	70	
		SVTO	0555.0	0555.0	III		1	39	63	
	0607 1613	POTS	0618 E	1603 U	I	S,C,DC	1	110U	300U	
		CULG	0621.0	0621.0	III	G	1	28	160	
		HIRA	0621.0	0622.0	III	G	1	40	170	
		LEAR	0621.0	0622.0	III		2	30	70	
		SVTO	0621.0	0621.0	III		1	38	85	
		POTS	0621.1	0621.8	III	G	3	40X	170U	
		LEAR	0630.0	0632.0	III		2	30	65	
		CULG	0631.0	0632.0	III	G	3	23	80	
		SVTO	0631.0	0631.0	III		1	37	60	
		POTS	0651.9	0652.3	UNCLF		2	110U	170U	
	0647 1200	IZMI	0651.9	0652.5	III	GG	2	90	270X	
		CULG	0652.0	0652.0	III	B	1	80	240	
		IZMI	0700.9	0707.6	I	N	1	50	95	
		IZMI	0726.3	0733.8	I	N	1	50	95	
		IZMI	0742.9	0743.6	III	G	2	45	270X	
		POTS	0742.9	0743.8	III	G	2	50	170U	
		POTS	0742.9	0747.8	DCIM		3	400U	620	
		CULG	0743.0	0744.0	III	G	1	45	640	
		HIRA	0743.0	0744.0	III	B	1	50	200	
		LEAR	0743.0	0744.0	III		1	30	75	
		SVTO	0743.0	0743.0	III		1	43	69	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
16		IZMI	0747.4	0747.8	III	G	2	200	270X	
		IZMI	0811.2	0811.8	I	GG	1	85	95	
		IZMI	0859.2	0859.5	III	G	2	80	165	
		POTS	0859.2	0859.5	III	G	2	110U	170U	
		IZMI	0908.0	0908.3	III	G	1	45	90	
		LEAR	0917.0	0922.0	III		1	30	65	
		SVTO	0917.0	0921.0	III		1	37	51	
		SVTO	0917.0	0922.0	III		1	37	51	
		POTS	0917.2	0922.1	III	G	2	40X	170U	
		IZMI	0917.3	0917.7	III	G,FS	2	35	265	
		IZMI	0921.5	0921.9	III	G,FS	2	30	135	
		IZMI	1003.3	1003.5	III	G	1	40	90	
		ONDR	1103.0	1109.0	DCIM	G	1	1060	1980	
	0621 1559	ONDR	1105.5	1106.2	DCIM		1	2000X	4500X	
		POTS	1149.5	1149.8	III	G	1	110U	170U	
		POTS	1353.8	1409.9	III	G	2	110U	170U	
		ONDR	1407.2	1412.3	DCIM	G,W	1	2000X	4500X	
		ONDR	1407.3	1411.0	DCIM	W	1	1190	2000X	
		POTS	1424.4	1431.5	III	G	2	80	170U	
		POTS	1454.7	1500.2	III	GG	3	40X	170U	
		SVTO	1455.0	1457.0	V		1	35	85	
		POTS	1516.0	1517.6	DCIM		2	400U	600U	
		ONDR	1516.3	1522.1	DCIM	G,W	1	800X	2000	
		POTS	1537.0	1539.5	III	G	2	40X	170U	
		SGMR	1537.0	1539.0	III		1	30	55	
		SVTO	1537.0	1538.0	III		1	35	72	
		SGMR	1832.0	2145.0	CONT		1	30	80	
	2030 2400	CULG	2030.0E	2213.0	III	S	1	28	140	
		CULG	2143.0	2144.0	III	G	2	23	180	
		PALE	2143.0	2143.0	III		1	25	90	
	2044 2400	HIRA	2143.0	2144.0	III	B	1	25X	200	
		CULG	2232.0	2342.0	III	N	1	100	200	
		LEAR	2345.0	2351.0	III		2	30	80	
		CULG	2346.0	2351.0	III	G	1	35	180	
		HIRA	2350.0	2351.0	III	B	1	30	160	
17	0000 0745	CULG	0211.0	0308.0	III	N	1	28	240	
		LEAR	0212.0	0212.0	III		2	30	80	
	0000 0849	HIRA	0216.0	0217.0	III	B	1	130	160	
		HIRA	0228.0	0231.0	III	G	1	110	320	
		LEAR	0236.0	0236.0	III		1	30	65	
		PALE	0236.0	0236.0	III		1	35	60	
		LEAR	0254.0	0255.0	III		2	30	65	
		PALE	0254.0	0330.0	III	N	1	25	90	
		CULG	0304.0	0305.0	III	G	2	28	150	
		HIRA	0304.0	0305.0	III	B	1	30	240	
		LEAR	0304.0	0305.0	III		2	30	80	
		CULG	0414.0	0420.0	III	GG	1	28	90	
		HIRA	0522.0	0523.0	III	B	1	120	300	
		CULG	0523.0	0523.0	III	B	1	140	260	
	0607 1613	POTS	0615 E	1606 U	I	S	1	110U	400	
		CULG	0718.0	0718.0	III	B	1	70	180	
		POTS	0718.1	0720.3	III	G	2	110U	170U	
	0704 1200	IZMI	0718.1	0718.3	III	G,HARM	2	55	180	
		IZMI	0756.2	0756.4	III	B	1	45	95	
		IZMI	0811.1	0813.1	III	G	2	40	270	
		IZMI	0815.0	1120.0U	I	S	2	200	270	
		IZMI	0827.6	0828.2	III	G	2	35	175	
		POTS	0828.1	0828.2	III	G	2	110U	170U	
		IZMI	0831.8	0832.4	III	GG,RS	2	245	270X	
		POTS	0840	1416	III	N	1	110U	170U	
		POTS	0844.9	0845.1	III	B	2	110U	170U	
		IZMI	0910.8	0911.0	III	B	2	40	100	
		IZMI	0926.2	0926.5	III	G,FS	2	40	110	
		POTS	0926.2	0926.5	III	B	1	40X	140	
		IZMI	0936.2	0936.5	III	G	2	45	160	
		POTS	0936.2	0936.5	III	B	2	40X	150	
		POTS	1058.7	1059.9	III	G	2	110U	135	
		IZMI	1103.3	1103.3	III	B	1	45	90	

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17 0618	1559	ONDR	1109.5	1128.0	DCIM	G	2	2000X	4500X	
		POTS	1110	1125	DCIM		2	200U	700	
		ONDR	1111.0	1126.4	DCIM	G	1	800X	2000X	
		IZMI	1114.7	1119.2	III	GG,HARM	2	60	270X	
		SVTO	1115.0	1116.0	III		1	68	85	
		POTS	1115.2	1116.9	II	SH,H	3	130	320U	
		POTS	1115.5	1116.2	II	F	3	65	90U	
		POTS	1115.6	1132.0	III	GG	3	110U	300U	
		IZMI	1120.0U	1200.0D	I	S	2	90	270X	
		POTS	1122.8	1124.6	II	UE	2	110U	160	
		IZMI	1125.1	1151.0	III	N	1	45	270X	
		IZMI	1129.2	1129.4	III	G	2	45	180	
		IZMI	1129.6	1134.6	II		1	45	65	
		POTS	1132.6	1134.7	II	UE	2	40X	60	
		SGMR	1137.0	1141.0	III		1	30	55	
		POTS	1146.0	1146.1	III	B	1	40X	90U	
		POTS	1209.4	1209.6	III	B	1	40X	90U	
		POTS	1211.2	1211.9	III	G	2	40X	120	
		POTS	1233.3	1233.4	III	B	2	110U	160	
		POTS	1233.6	1234.7	III	G	2	40X	120	
		SVTO	1253.0	1253.0	III		1	35	73	
		POTS	1253.5	1253.8	III	G	2	40X	90U	
		POTS	1326.4	1326.6	III	G	3	145	275U	
		POTS	1335.1	1338.2	III	GG	2	40X	170U	
		POTS	1405.7	1405.8	III	G	2	110U	160	
		POTS	1413.6	1413.8	III	G	3	110U	170U	
		POTS	1425.6	1425.9	III	G	2	110U	150	
		POTS	1500.0	1500.4	III	G	2	110U	160	
		POTS	1538.7	1544.2	III	GG	3	110U	170U	
		SGMR	1937.0	1941.0	III		1	30	55	
2040	2400	CULG	2040.0E	2131.0	III	N	1	28	90	
2043	2400	HIRA								
		CULG	2237.0	2237.0	III	B	1	25	90	
		CULG	2334.0	2400.0D	III	S	1	60	180	
		PALE	2349.0	2351.0	III		1	25	90	
		LEAR	2351.0	2351.0	III		2	30	80	
		CULG	2352.0	2352.0	III	B	1	18	90	
		LEAR	2357.0	0739.0	CONT		2	30	80	
18 0000	0748	CULG	0000.0E	0450.0	III	S	2	18X	180	
		PALE	0029.0	0031.0	III		1	25	60	
		CULG	0225.0	0225.0	III	B	2	130	400	
0000	0850	HIRA	0225.0	0226.0	III	B	2	120	400	
		LEAR	0536.0	0537.0	III		2	30	50	
		CULG	0537.0	0537.0	III	B	1	23	60	
0607	1613	POTS	0613 E	1607 U	I	S,C,DC	2	110U	375U	
0616	1601	ONDR								
		POTS	0618	1603	III	N	1	110U	170U	
		CULG	0620.0	0740.0D	III	N	1	25	180	
		SVTO	0621.0	0621.0	III		1	40U	47U	
		POTS	0637.6	0641.2	III	G	3	110U	170U	
		IZMI	0659.0E	1000.3	I	N	1	200	260	
0659	1200	IZMI	0659.0E	1200.0D	III	N	1	45	90	
		IZMI	0710.2	0713.2	III	GG	2	45	215	
		POTS	0710.2	0711.8	III	G	3	110U	170U	
		POTS	0724.3	0724.4	III	B	2	110U	170U	
		SVTO	0732.0	0732.0	III		1	35	75	
		IZMI	0732.3	0734.2	III	G,C	2	40	165	
		POTS	0732.3	0732.9	III	G	2	40X	170U	
		IZMI	0735.3	0736.7	III	G,C	2	45	165	
		IZMI	0738.1	0738.7	III	G	2	45	130	
		LEAR	0825.0	0826.0	III		1	35	65	
		SVTO	0825.0	0825.0	III		1	38U	45U	
		IZMI	0825.4	0826.2	III	G	1	40	95	
		POTS	0905.4	0907.2	III	G	2	110U	170U	
		POTS	0922.1	0922.3	III	B	2	110U	170U	
		POTS	0943.1	0943.2	III	B	2	110U	170U	
		IZMI	1000.3	1200.0D	I	S	2	120	270	
		IZMI	1022.8	1023.0	III	G	2	120	245	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
18			IZMI	1028.3	1028.6	III	B	2	45	160	
			POTS	1028.4	1028.6	III	B	2	40X	170U	
			POTS	1114.3	1114.5	III	B	1	40X	60	
			IZMI	1135.7	1154.2	III	G	2	200	270X	
			POTS	1206.7	1206.8	III	B	1	40X	150	
			POTS	1248.7	1248.8	III	B	2	110U	170U	
			SVTO	1320.0	1323.0	III		1	35U	45U	
			POTS	1320.3	1331.1	III	GG	2	40X	170U	
			SGMR	1330.0	1331.0	III		1	30	80	
			SVTO	1330.0	1331.0	III		1	35	79	
			POTS	1344.6	1348.8	III	G	3	40X	170U	
			POTS	1444.4	1444.5	III	B	2	110U	160	
			POTS	1445.3	1459.4	III	GG,RS	2	40X	170U	
			SGMR	1446.0	1446.0	III		1	30	55	
			SVTO	1446.0	1446.0	III		1	36	67	
			POTS	1509.9	1510.3	III	G	2	110U	170U	
			POTS	1549.2	1549.8	III	G	3	70	170U	
			PALE	2056.0	2058.0	III		2	25	89	
			SGMR	2056.0	2058.0	III		2	30	80	
	2040	2400	CULG	2056.0	2058.0	III	G	2	25	180	
	2041	2400	HIRA	2056.0	2057.0	III	G	2	25X	180	
			CULG	2101.0	2111.0	II	FN	1	28	70	
			CULG	2101.0	2112.0	II	SH	2	45	140	SWF ESS
			HIRA	2101.0	2110.0	II		2	50	120	ESS 600
			PALE	2105.0	2111.0	II		1	25	95	ESS 0730
			PALE	2105.0	2111.0	II		2	25	95	ESS 0730
			SGMR	2105.0	2110.0	II		2	30	80	ESS 0800
			CULG	2109.0	2127.0	III	N	1	28	180	
			CULG	2112.0	2116.0	II	FN	1	35	45	
			CULG	2112.0	2118.0	II	SH	1	45	80	
			HIRA	2112.0	2115.0	III	G	1	50	240	
			CULG	2153.0	2155.0	III	G	3	23	470	
			HIRA	2153.0	2154.0	III	B	3	25X	260	
			PALE	2153.0	2154.0	III		2	25	180	
			SGMR	2153.0	2154.0	III		2	30	80	
			CULG	2155.0	2201.0	II	FN	1	50	110	ESS 600
			CULG	2156.0	2202.0	II	SH	1	90	180	
			CULG	2157.0	2159.0	III	G	1	23	150	
			HIRA	2157.0	2202.0	II		2	80	180	ESS 550
			PALE	2158.0	2158.0	III		1	25	86	
			PALE	2247.0	2250.0	III		1	25	150	
			CULG	2250.0	2253.0	III	G	2	18	180	
			HIRA	2250.0	2251.0	III	B	2	25X	210	
			LEAR	2250.0	2251.0	III		2	37	80	
			CULG	2316.0	2318.0	III	G	1	18	180	
			HIRA	2316.0	2317.0	III	B	1	25X	160	
			LEAR	2316.0	2317.0	III		2	30	80	
			PALE	2316.0	2317.0	III		1	25	86	
			CULG	2335.0	2343.0	III	G	1	65	180	
			LEAR	2346.0	2350.0	III		3	30	80	
			CULG	2347.0	2349.0	III	G	2	20	160	
			HIRA	2347.0	2348.0	III	G	1	25X	140	
			PALE	2347.0	2349.0	III		1	25	135	
19	0000	0740	CULG	0015.0	0015.0	III	B	1	110	160	
			CULG	0049.0	0049.0	III	B	1	60	160	
			LEAR	0115.0	0118.0	III		2	30	80	
			CULG	0116.0	0118.0	III	G	1	18	450	
			PALE	0116.0	0118.0	III		1	25	135	
	0000	0851	HIRA	0116.0	0117.0	III	G	2	25X	440	
			CULG	0127.0	0245.0	III	N	1	140	180	
			LEAR	0201.0	0202.0	III		1	40	65	
			LEAR	0203.0	0209.0	II		2	30	80	ESS 0700
			PALE	0204.0	0209.0	II		1	33	86	ESS 0583
			HIRA	0205.0	0210.0	III	G	1	50	100	
			CULG	0206.0	0210.0	II	FN	1	30	50	
			CULG	0206.0	0210.0	II	SH	2	50	100	
			LEAR	0236.0	0236.0	III		1	30	60	
			PALE	0236.0	0243.0	III		1	35	175	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
19		HIRA	0242.0	0244.0	III	G	2	50	220	
		CULG	0243.0	0243.0	III	B	2	50	200	
		LEAR	0243.0	0243.0	III		1	55	75	
		CULG	0409.0	0410.0	III	G	2	18	90	
		HIRA	0409.0	0410.0	III	B	1	25X	80	
		LEAR	0409.0	0409.0	III		3	30	70	
		CULG	0435.0	0651.0	III	N	1	30	180	
		LEAR	0455.0	0456.0	III		1	30	60	
		HIRA	0512.0	0513.0	III	B	1	80	220	
0607	1613	POTS	0610 E	1612 U	I	S,C,DC	2	110U	350U	40-90 MH
		POTS	0611	1520	III	N	1	110U	170U	
		LEAR	0611.0	0615.0	III		2	30	80	
		SVTO	0611.0	0615.0	III		2	35	85	
		POTS	0613.1	0623.7	III	GG	3	110U	170U	
		CULG	0615.0	0615.0	III	B	3	40	250	
		HIRA	0615.0	0616.0	III	B	3	50	240	
		POTS	0636.3	0646.6	III	G	3	110U	170U	
0701	1200	IZMI	0701.0E	1200.0D	I	N	1	105	270	
		IZMI	0708.5	0708.6	III	B	1	75	95	
		POTS	0733.8	0734.1	III	G	2	110U	170U	
		LEAR	0753.0	0753.0	III		1	40	60	
		SVTO	0753.0	0754.0	III		1	43	59	
		IZMI	0753.6	0753.9	III	G	2	40	65	
		POTS	0759.0	0759.1	III	B	2	110U	170U	
		IZMI	0801.8	0801.82	III	G	2	120	270X	
		POTS	0801.8	0801.9	III	B	2	110U	170U	
		POTS	0829.0	0829.8	III	G	2	110U	170U	
		POTS	0836.8	0837.3	III	G	2	110U	170U	
		IZMI	0852.3	0853.6	III	GG	2	120	270	
		POTS	0852.4	0856.1	III	G	3	110U	170U	
		IZMI	0856.0	0856.1	III	G	2	45	170	
		POTS	0908.9	0920.4	III	G	2	110U	170U	
		IZMI	0920.2	0920.4	III	G	2	45	250	
		IZMI	0935.3	0935.5	III	G	2	105	180	
		POTS	0935.3	0942.6	III	G	2	110U	170U	
		IZMI	0941.9	0942.5	III	G,FS	2	45	180	
		IZMI	0948.2	0948.8	III	G	2	45	70	
		IZMI	0955.5	1001.2	III	GG	2	35	270X	
		SVTO	0959.0	1000.0	III		1	56	72	
		POTS	0959.1	1013.9	III	GG,RS	3	110U	170U	
		IZMI	1006.0	1011.9	III	N	1	135	270X	
		IZMI	1010.2	1010.5	III	G	2	65	140	
		IZMI	1013.7	1013.9	III	G	2	45	180	
		IZMI	1050.2	1051.0	III	GG	2	40	245	
		POTS	1050.4	1104.8	III	GG	3	110U	170U	
		IZMI	1052.5	1052.9	III	G	2	105	245	
		IZMI	1055.3	1055.5	III	B	2	45	180	
		IZMI	1104.1	1104.8	III	G	2	105	245	
		IZMI	1120.0	1123.2	III	GG	2	35	165	
		POTS	1120.8	1122.8	III	G	2	110U	170U	
		SVTO	1121.0	1123.0	III		1	36	67	
		ONDR	1137.3	1145.1	DCIM	G	1	2000X	800X	
0614	1602	ONDR	1142.4	1145.0	DCIM	G	1	2000X	4500X	
		IZMI	1142.5	1153.9	II	II,HARM	2	80	180	
		POTS	1144.3	1145.6	II	F	2	125	145	
		POTS	1145.0	1145.8	II	SH	1	220	275U	
		POTS	1146.0	1148.1	II	UE	3	125	275U	
		SGMR	1146.0	1148.0	V		1	30	80	
		SVTO	1146.0	1147.0	III		1	35	78	
		POTS	1202.6	1203.7	III	B	2	110U	170U	
		SVTO	1243.0	1246.0	V		2	35	85	
		POTS	1243.5	1245.4	III	G,RS	3	110U	170U	
		SGMR	1244.0	1246.0	III		3	30	80	
		ONDR	1414.4	1416.0	DCIM		1	2000X	4500X	
		SVTO	1415.0	1415.0	III		1	48	84	
		POTS	1415.1	1423.0	III	G	3	110U	170U	
		POTS	1434.4	1434.6	III	G	3	110U	170U	
		SVTO	1457.0	1457.0	III		1	51	65	
		POTS	1457.5	1511.5	III	GG	3	110U	170U	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
19			POTS	1519.5	1521.2	III	G	3	110U	170U	
			POTS	1521.2	1522.8	II	UE	3	135	160	
			POTS	1536.0	1536.1	III	B	3	110U	170U	
			SGMR	1550.0	1551.0	III		1	30	60	
			SVTO	1550.0	1551.0	III		1	35	41	
			SGMR	1710.0	1711.0	V		1	30	55	
	2040	2400	CULG	2200.0	2215.0	III	GG	2	23	180	
			SGMR	2202.0	2203.0	III		1	30	80	
	2040	2400	HIRA	2202.0	2214.0	III	G	2	30	160	
			PALE	2351.0	2351.0	III		1	25	55	
20	0000	0740	CULG	0014.0	0015.0	III	G	1	45	180	
			CULG	0144.0	0144.0	III	B	2	60	300	
			PALE	0144.0	0144.0	III		1	60	1800	
	0000	0852	HIRA	0144.0	0145.0	III	B	2	70	320	
			LEAR	0253.0	0257.0	III		1	30	55	
			CULG	0337.0	0338.0	III	G	1	28	160	
			HIRA	0337.0	0338.0	III	B	2	80	150	
			LEAR	0337.0	0339.0	III		1	30	50	
			PALE	0337.0	0337.0	III		1	75	1500	
			CULG	0355.0	0359.0	III	G	1	40	170	
			HIRA	0355.0	0356.0	III	B	1	50	160	
			CULG	0436.0	0438.0	III	G	3	18	180	
			LEAR	0436.0	0438.0	III		3	30	80	
			HIRA	0437.0	0438.0	III	B	2	25X	180	
			CULG	0529.0	0531.0	III	G	1	25	260	
			HIRA	0529.0	0531.0	III	G	1	70	300	
			LEAR	0529.0	0529.0	III		1	30	50	
			CULG	0647.0	0650.0	III	G	1	60	330	
			IZMI	0647.0E	1200.0D	III	N	1	45	90	
	0647	1200	IZMI	0647.0E	1200.0D	I	N	1	160	270	
			ONDR	0752.1	0754.0	DCIM	W	1	1265	2000X	
	0611	1605	ONDR	0752.2	0753.5	DCIM	G	1	2000X	4500X	
			SVTO	0814.0	0815.0	III		1	65	84	
			IZMI	0814.6	0815.1	III	G	2	45	245	
			HIRA	0815.0	0833.0	III	G	3	50	440	
			IZMI	0821.1	0821.8	III	G,FS	2	55	270X	
			ONDR	0822.2	0844.1	DCIM	GG	2	800X	2000X	
			ONDR	0823.5	0839.0	DCIM	G	2	2000X	4500X	
			SVTO	0826.0	0916.0	IV		1	35	85	
			IZMI	0826.8	0827.9	II		2	50	120	
			IZMI	0826.8	0828.3	III	G	2	35	270X	
			IZMI	0828.5U	0906.0U	III	N,C	2	40	270X	
			IZMI	0831.1	0831.3	III	B	2	30	90	
			LEAR	0833.0	0919.0	IV		2	35	80	
			IZMI	0836.0	0836.2	III	G	2	30	75	
			IZMI	0840.6	0845.6	UNCLF		2	55	95	
			LEAR	0843.0	0845.0	II		2	63	80	ESS 0500
			SVTO	0843.0	0845.0	II		1	62	74	ESS 0500
			ONDR	0848.2	0859.2	DCIM	G	1	800X	2000X	
			ONDR	0852.4	0857.1	DCIM		1	2000X	3905	
			IZMI	0913.4	0914.8	III	G,C	2	35	150	
			ONDR	1003.3	1004.3	DCIM	G	2	2000X	4500X	
			ONDR	1003.3	1004.5	DCIM		1	1580	2000X	
			IZMI	1003.6	1003.7	III	B	2	130	270X	
			ONDR	1030.5	1033.4	DCIM	GG	2	800X	1250	
			IZMI	1041.7	1044.4	III	GG	2	35	270X	
			ONDR	1053.4	1057.2	DCIM	G	1	800X	2000X	
			IZMI	1053.9	1058.6	III	GG,FS	2	25	270X	
			SVTO	1054.0	1056.0	III		1	35	83	
			ONDR	1054.1	1057.1	DCIM	G	1	2000X	4500X	
			SVTO	1114.0	1225.0	CONT		1	60	80	
			SVTO	1208.0	1213.0	III		1	35	83	
			SVTO	1437.0	1451.0	III	N	1	37	72	
			SGMR	1450.0	1501.0	III	N	1	30	60	
			SGMR	1643.0	1646.0	III		2	30	80	
			PALE	1850.0	1901.0	III	N	2	25	1800	
			PALE	1932.0	1933.0	III		1	30	50	
			SGMR	1932.0	1933.0	III		1	35	50	

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OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
20			PALE	2011.0	2014.0	III		1	25	130	
			SGMR	2011.0	2014.0	III		2	30	60	
	2040	2400	CULG	2118.0	2118.0	III	B	1	45	90	
			CULG	2129.0	2133.0	III	G	1	30	160	
			CULG	2158.0	2159.0	III	G	2	28	180	
	2038	2400	HIRA	2158.0	2159.0	III	B	1	25X	160	
			CULG	2211.0	2222.0	III	G	1	25	180	
			HIRA	2215.0	2217.0	III	G	1	40	160	
			CULG	2333.0	2352.0	III	N	1	30	180	
			HIRA	2343.0	2344.0	III	B	1	50	140	
			HIRA	2350.0	2351.0	III	B	1	40	120	
			LEAR	2350.0	2351.0	III		2	30	80	
			PALE	2350.0	2351.0	III		1	40	87	
21	0000	0740	CULG	0040.0	0047.0	III	G	1	25	160	
			LEAR	0043.0	0047.0	III		2	30	80	
	0000	0852	HIRA	0043.0	0044.0	III	G	1	25X	140	
			CULG	0113.0	0114.0	III	G	1	40	180	
			HIRA	0113.0	0114.0	III	B	1	80	160	
			CULG	0153.0	0155.0	III	G	3	18X	180	
			HIRA	0153.0	0159.0	III	G	2	25X	300	
			LEAR	0153.0	0524.0	III	N	2	30	80	
			PALE	0153.0	0158.0	III		2	25	150	
			CULG	0156.0	0204.0	III	G	2	20	180	
			CULG	0218.0	0740.0D	I	S	1	100	180	
			CULG	0229.0	0229.0	III	B	1	20	70	
			CULG	0333.0	0334.0	III	G	1	30	110	
			CULG	0401.0	0411.0	III	G	1	30	110	
			CULG	0454.0	0540.0	III	N	1	30	180	
	0543	0635	POTS	0604 E	0635 U	I	S,C,DC	2	110U	170U	
			LEAR	0625.0	0625.0	III		1	30	50	
	0645	1630	POTS	0645 E	1617 U	I	S,C,DC	2	110U	350U	
			POTS	0656.2	0656.3	DCIM		2	400	550	
			CULG	0657.0	0659.0	III	G	1	28	140	
			LEAR	0657.0	0659.0	III		2	30	70	
			POTS	0657.1	0657.2	III	B	2	110U	160	
			SVTO	0658.0	0658.0	III		1	35	85	
			SVTO	0701.0	0842.0	CONT		1	38	56	
			LEAR	0708.0	0801.0	CONT		1	40	65	
	0708	1203	IZMI	0708.0E	1203.0D	I	S	2	80	270X	
			POTS	0711.9	0712.3	DCIM		1	400	475	
			IZMI	0715.0U	1020.0U	III	N	1	45	95	
			ONDR	0717.3	0719.0	DCIM	G,W	1	800X	2000X	
			IZMI	0733.4	0733.7	III	B	2	40	95	
			CULG	0734.0	0740.0	III	G	1	28	180	
			LEAR	0736.0	0737.0	III		2	30	80	
			SVTO	0736.0	0736.0	III		1	37	83	
			IZMI	0736.5	0736.8	III	G	2	30	165	
			POTS	0736.6	0736.9	III	B	3	40X	170U	
			IZMI	0739.5	0739.7	III	B	2	135	255	
			POTS	0739.6	0739.7	III	G,U	3	130	170U	
			IZMI	0746.7	0747.8	III	G	1	45X	120	
	0609	1606	ONDR	0758.4	0759.3	DCIM	G	1	2080	4500X	
			IZMI	0758.8	0759.3	III	G	2	160	255	
			POTS	0906.4	0906.6	III	G	2	40X	150	
			POTS	0922.9	0923.0	III	B	1	40X	90U	
			POTS	0937.6	0937.7	III	B	2	110U	170U	
			IZMI	1057.8	1058.0	III	G	2	80	175	
			POTS	1057.8	1058.2	III	G	2	80	170U	
			POTS	1114.7	1115.2	DCIM		2	275U	700	
			POTS	1130.3	1130.4	III	B	1	110U	170U	
			POTS	1149.4	1149.5	III	B	1	200U	275U	
			IZMI	1201.8	1202.8	III	G	2	45	75	
			SVTO	1202.0	1203.0	III		1	35	68	
			POTS	1202.7	1203.0	III	B	2	40X	145	
			POTS	1421.0	1423.8	II	UE	3	65	135	
			SVTO	1421.0	1424.0	III		1	67	85	
			SVTO	1421.0	1424.0	II		1	67	85	ESS 1200
			ONDR	1438.4	1439.2	DCIM	G	1	1020	2000	

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Day	OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
21			POTS	1458.2	1458.5	III	G	2	110U	145	
	2036	2400	HIRA								
	2040	2400	CULG								
22	0000	0853	HIRA								
			LEAR	0304.0	0304.0	III		1	30	55	
	0000	0740	CULG	0304.0	0304.0	III	B	1	28	80	
			CULG	0407.0	0407.0	III	B	1	60	180	
	0700	1200	IZMI	0700.3	0701.5	I	GG	2	200	230	
			IZMI	0701.0	0703.3	III	G	1	40	65	
			IZMI	0714.5	0714.6	III	B	1	200	245	
			IZMI	0746.1	0747.3	III	G	1	45	65	
			IZMI	0901.0	0901.6	I	GG,DC	2	130	160	
			IZMI	0901.5	0901.7	III	B	2	50	95	
			IZMI	0908.4	0908.9	I	GG,DC	2	202	215	
			IZMI	0917.6	0918.0	III	G	1	45X	90	
			IZMI	0949.1	0949.8	III	B	1	45	95	
			IZMI	0956.3	0957.3	III	G	1	45	65	
			IZMI	1014.0	1014.1	III	B	1	45	90	
			IZMI	1023.0U	1055.0U	I	S	1	200	270	
			IZMI	1025.9	1026.1	III	B	1	45	65	
			IZMI	1042.2	1042.4	III	B	1	45	95	
	0607	1608	ONDR	1048.1	1049.3	DCIM	G	1	1147	2000X	
			IZMI	1101.6	1101.8	III	B	2	45	95	
			IZMI	1109.0	1200.0U	III	N	1	45	95	
			IZMI	1130.8	1131.3	III	G	2	85	270X	
			IZMI	1133.3	1133.5	III	G	2	200	270X	
			SVTO	1616.0	1617.0	III		1	47	60	
			PALE	1846.0	1900.0	II		2	25	180	ESS 0652
			PALE	1846.0	2114.0	IV		2	25	180	
			SGMR	1849.0	1900.0	II		3	30	80	ESS 1200
			SGMR	1849.0	2030.0	IV		3	30	80	
	2034	2400	HIRA								
	2030	2400	CULG	2040.0	2040.0	III	B	1	30	90	
			CULG	2328.0	2330.0	III	G	1	110	190	
23			LEAR	0220.0	0222.0	III		2	30	70	
			PALE	0220.0	0222.0	III		1	25	90	
	0000	0740	CULG	0220.0	0222.0	III	G	1	23	180	
	0000	0855	HIRA	0220.0	0222.0	III	G	1	40	300	
			CULG	0406.0	0406.0	III	B	1	30	120	
			CULG	0506.0	0511.0	III	G	1	35	300	
			LEAR	0507.0	0508.0	III		2	30	62	
			HIRA	0509.0	0510.0	III	B	2	100	340	
			LEAR	0510.0	0905.0	CONT		1	30	80	
			SVTO	0528.0	1643.0	CONT		1	35	85	
	0605	1609	ONDR								
			CULG	0654.0	0656.0	III	G	3	28	300	
			HIRA	0654.0	0655.0	III	B	1	50	320	
			LEAR	0654.0	0655.0	III		3	30	80	
			SVTO	0654.0	0655.0	III		2	35	85	
			CULG	0717.0	0717.0	III	B	1	28	140	
			LEAR	0717.0	0717.0	III		2	30	80	
			SVTO	0717.0	0717.0	III		1	36	85	
	0902	1200	IZMI	0802.0E	1200.0D	I	S	2	135	270X	
			IZMI	0804.2	0804.4	III	G,RS	2	45	65	
			IZMI	0825.9	0826.4	III	G	2	45	95	
			IZMI	0829.5	0829.8	III	G	2	65	180	
			IZMI	0834.1	0835.0	III	G	2	45	270X	
			LEAR	0836.0	0839.0	III		2	35	80	
			SVTO	0836.0	0839.0	III		1	35	75	
			IZMI	0836.3	0839.7	II	HARM	2	40	90	
	0836	1634	POTS	0837 E	0839.1	UNCLF		2	40X	60	
			IZMI	0903.8	0904.1	III	B	2	35	95	
			IZMI	0905.5	0905.7	UNCLF	RS	2	40	95	
			POTS	0919 E	0937 U	I	S,C,DC	2	110U	170U	
			IZMI	1006.8	1006.9	III	G	2	200	270X	
			IZMI	1018.0U	1200.0D	III	N	1	45	95	
			IZMI	1020.7	1021.3	III	G,FS	2	40	160	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
23		POTS	1020.7	1021.4	III	G	2	40X	90U	
		POTS	1025 E	1228 U	I	S,C,DC	2	110U	300U	
		POTS	1031.8	1032.0	III	B	2	40X	140U	
		IZMI	1045.1	1046.2	III	G	2	190	270X	
		POTS	1046.0	1046.3	III	G	2	120	400	
		POTS	1238.7	1239.6	III	G	2	40X	90U	
		POTS	1309.0	1310.6	III	G	3	40X	90U	
		SGMR	1309.0	1311.0	V		2	30U	70U	
		SGMR	1412.0	1421.0	III		1	30	50	
		POTS	1412.5	1420.5	III	G	2	40X	155	
		POTS	1529.2	1529.3	III	B	2	55	80	
		PALE	1833.0	1834.0	III		1	25	70	
		SGMR	1833.0	1833.0	III		1	30	60	
	2033 2400	HIRA								
	2040 2400	CULG								
		LEAR	2325.0	0807.0	CONT		1	30	80	
24		LEAR	0108.0	0109.0	III		2	30	70	
		PALE	0108.0	0109.0	III		1	40	58	
	0000 0800	CULG	0109.0	0109.0	III	B	1	20	90	
		CULG	0351.0	0351.0	III	B	1	30	180	
		CULG	0438.0	0438.0	III	B	1	30	110	
		SVTO	0528.0	0804.0	CONT		1	35	85	
	0544 1627	POTS	0544 E	1610 U	I	S,C,DC	2	40X	300U	
		CULG	0636.0	0740.0U	III	S	1	30	180	
		IZMI	0652.0E	1200.0D	III	N	1	45	90	
	0652 1200	IZMI	0652.0E	1200.0D	I	S,C	2	50	260	
		IZMI	0710.0	0710.2	III	G	2	55	120	
		LEAR	0738.0	0739.0	III		2	30	80	
		IZMI	0738.6	0738.9	III	G	2	45	215	
	0603 1611	ONDR	0744.1	0757.1	DCIM	GG	2	2000X	4500X	
		ONDR	0744.4	0802.4	DCIM	GG	2	800X	2000X	
		LEAR	0750.0	0802.0	II		2	30	80	ESS 0800
		POTS	0750.0	0756.5	DCIM		2	450	700	
		SVTO	0750.0	0804.0	II		1	35	85	ESS 0700
		IZMI	0750.2	0751.5	III	G	2	200	270X	
		IZMI	0750.5	0802.2U	II	HARM,FS	2	25X	180	
		POTS	0750.6	0813	II	F,H	2	40X	90U	
		POTS	0750.9	0813	II	SH,H	2	75	170U	
		CULG	0751.0	0756.0	II	FN	3	30	90	
		CULG	0751.0	0800.0D	II	SH	2	40	180	ESS 700
		HIRA	0751.0	0800.0	II	SH	2	60	160	ESS 800
	0000 0855	HIRA	0751.0	0758.0	II	FN	2	50	90	ESS 800
		IZMI	0753.0	0755.6	III	G	2	40	200	
		IZMI	0757.0U	0835.0U	IV		2	50	175	
		LEAR	0802.0	0804.0	III		2	30	80	
		IZMI	0802.9	0804.2	III	GG	2	30	65U	
		SVTO	0804.0	1644.0	IV		1	35	85	
		LEAR	0807.0	0954.0	IV		2	30	80	
		IZMI	0807.2	0808.2	III	G	2	35	65	
		ONDR	0807.3	0817.4	DCIM	G	1	2000X	4500X	
		ONDR	0808.2	0817.5	DCIM	G	1	800X	2000X	
		IZMI	0810.2	0813.2	III	GG	2	30	145	
		ONDR	0824.3	0827.3	DCIM	G	1	800X	2000X	
		POTS	0825	0840.5	III	GG	2	40X	90U	
		IZMI	0825.3	0828.7	III	GG	2	35	65	
		ONDR	0833.1	0848.2	DCIM	GG	2	800X	2000X	
		ONDR	0833.5	0909.0	DCIM	G	1	2000X	4500X	
		IZMI	0837.5	0838.1	III	G	2	40	100	
		ONDR	0851.3	0916.1	DCIM	GG	2	800X	2000X	
		POTS	0917	1524	III	N	1	40X	90U	
		ONDR	0931.4	0939.2	DCIM	GG	2	800X	1292	
		IZMI	1111.3	1113.4	III	GG	2	30	245	
		POTS	1111.5	1112.6	III	G	2	40X	250U	
		IZMI	1140.5	1146.5	III	GG	2	25X	245	
		POTS	1140.5	1147.5	III	GG	3	40X	170U	
		POTS	1322.1	1322.7	III	G	2	40X	90U	
		POTS	1342.4	1343.5	III	G	2	40X	90U	
		POTS	1410.9	1411.3	III	G	2	40X	90U	

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OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
24			SGMR	1518.0	1535.0	III	N	3	30	80	
			SVTO	1518.0	1521.0	V		2	35	85	
			POTS	1518.8	1521.3	III	G	3	40X	70	
			SVTO	1532.0	1535.0	III		1	35	85	
			POTS	1533.4	1534.9	III	G	2	40X	90U	
			SGMR	1958.0	1958.0	III		3	30	80	
	2032	2400	HIRA								
			SGMR	2036.0	2037.0	III		1	30	80	
	2040	2400	CULG	2040.0E	2400.0D	III	S	1	28	150	
25	0000	0856	HIRA								
	0000	0740	CULG	0000.0E	0740.0D	III	S	1	28	160	
			LEAR	0128.0	0352.0	CONT		2	30	80	
			SVTO	0503.0	1645.0	IV		1	35	85	
	0600	1613	ONDR								
	0544	1628	POTS	0616	1628 U	I	S,C,DC	3	40X	400	
	0659	1200	IZMI	0659.0E	1200.0D	I	S,C	2	45	270X	
			POTS	0703	1408	III	N	1	40X	90U	
			IZMI	0805.4	0806.5	III	G	2	40	180	
			IZMI	0918.0	0918.3	III	G	2	105	240	
			POTS	1137.7	1138.1	III	G	3	110U	170U	
			SGMR	1142.0	2200.0	CONT		2	30	80	
			POTS	1234.6	1234.8	III	G	2	40X	170U	
			PALE	1958.0	1958.0	III		2	25	180	
			PALE	2036.0	2036.0	III		1	25	54	
	2040	2400	CULG	2040.0E	2237.0U	IV	FS	2	23	180	
			PALE	2121.0	2125.0	III		1	25	150	
	2031	2400	HIRA	2121.0	2122.0	III	B	1	40	140	
			CULG	2122.0	2122.0	III	B	3	30	180	
			CULG	2233.0	2234.0	III	G	1	23	120	
			CULG	2235.0	2248.0	II	SH	3	40	240	ESS 600
			CULG	2235.0	2251.0	II	FN	3	23	130	
			HIRA	2235.0	2246.0	II		2	30	160	ESS 700
			HIRA	2236.0	2238.0	III	G	2	25X	160	
			LEAR	2236.0	2237.0	III		2	35	80	
			PALE	2236.0	2246.0	II		2	25	180	ESS 1700
			SGMR	2236.0	2240.0	V		3	30	80	
			LEAR	2237.0	2245.0	II		2	35	80	ESS 0800
			LEAR	2245.0	0929.0	IV		1	30	80	
			CULG	2250.0	2400.0D	I	S,C	2	60	160	
			CULG	2255.0	2400.0D	III	S	1	23	180	
26			CULG	0000.0E	0740.0D	I	S,C	2	60	160	
	0000	0740	CULG	0000.0E	0740.0D	III	S	1	23	180	
			CULG	0257.0	0259.0	III	G	3	18	180	
			LEAR	0257.0	0258.0	III		2	30	80	
	0000	0857	HIRA	0257.0	0258.0	III	B	1	25X	160	
			SVTO	0503.0	1646.0	IV		1	35	85	
	0543	1630	POTS	0543 E	1630 U	I	S,C,DC	2	40X	400	
			IZMI	0548.0E	1200.0D	III	S	2	45	90	
	0548	1200	IZMI	0548.0E	1200.0D	I	S,C	2	45	250X	
			IZMI	0631.8	0631.9	III	G	2	160	270X	
			POTS	0631.9	0632.0	III	G	2	200U	325	
			LEAR	0647.0	0647.0	III		2	30	60	
			IZMI	0647.6	0648.8	III	GG	2	40	270X	
			POTS	0647.9	0648.1	III	G	2	200U	375	
			IZMI	0701.1	0701.3	III	B	2	40	60	
			POTS	0918	1543	III	N	1	40X	90U	
			POTS	0936.3	0941.9	III	GG	3	40X	300	
			IZMI	0937.6	0937.7	UNCLF		2	40	45	
			IZMI	0938.3	0938.5	III	B	2	40	90	
			SVTO	1036.0	1042.0	III		1	35	72	
			IZMI	1036.4	1039.0	III	GG	2	25X	270X	
			ONDR	1037.3	1042.4	DCIM	G	1	800X	2000X	
	0658	1613	ONDR	1040.5	1042.5	DCIM		1	2000X	4500X	
			IZMI	1040.6	1041.8	III	G	2	25X	270X	
			IZMI	1051.9	1053.2	III	G	2	40	65	
			IZMI	1056.3	1056.8	III	G	2	40	95	
			IZMI	1114.9	1116.0	III	G	2	35	95	

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Day	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
		26	POTS	1114.9	1119.4	III	G	3	40X	170U	
			SGMR	1118.0	1118.0	III		1	35	60	
			IZMI	1118.1	1118.4	III	G	2	25X	270X	
			IZMI	1118.2	1118.4	V		2	30	65	
			POTS	1235.6	1235.9	III	G	2	40X	90U	
			SGMR	1710.0	1755.0	CONT		1	30	70	
2100	2400		HIRA								
2040	2400		CULG	2111.0	2400.0D	III	S	1	30	160	
			LEAR	2316.0	0151.0	CONT		1	40	80	
0000	0740	27	CULG	0000.0	0117.0	III	S	1	30	130	
			LEAR	0139.0	0141.0	III		2	30	60	
			PALE	0139.0	0141.0	III		1	25	135	
			CULG	0140.0	0141.0	III	G	1	18X	150	
			CULG	0222.0	0226.0	III	G	1	30	90	
			CULG	0321.0	0322.0	III	G	1	30	90	
			CULG	0354.0	0354.0	III	B	1	30	90	
			LEAR	0444.0	0445.0	III		1	30	40	
			CULG	0445.0	0445.0	III	B	1	30	160	
0604	1200		IZMI	0604.0E	1200.0D	III	N	1	45	95	
			CULG	0634.0	0635.0	III	G	1	25	160	
			LEAR	0634.0	0635.0	III		1	30	70	
			SVTO	0634.0	0645.0	III	N	2	35	85	
			IZMI	0634.2	0634.8	III	G,FS	2	30	245	
0543	1628		POTS	0641	1504	I	S	1	110U	400	
			IZMI	0641.9	0645.7	III	GG,FS	2	45	220	
			CULG	0642.0	0645.0	III	G	3	23	160	
0000	0858		HIRA	0642.0	0645.0	III	G	1	30	160	
			POTS	0642.1	0644.3	III	G	3	40X	70	
			IZMI	0642.2	0645.0U	CONT		2	25X	85	
0633	1615		ONDR	0643.3	0650.4	DCIM	GG	1	800X	1358	
			CULG	0646.0	0653.0	II	FN	3	28	90	
			CULG	0646.0	0654.0	II	SH	3	40	180	ESS 1400
			SVTO	0646.0	0705.0	II		2	35	85	ESS 1000
			IZMI	0646.2	0705.7	II	HARM	2	35	230	
			POTS	0646.3	0651	UNCLF		2	130	250	
			HIRA	0647.0	0705.0	II		3	40	200	ESS 700
			LEAR	0647.0	0705.0	II		3	30	80	ESS 0900
			POTS	0647.0	0701	II	SH,H	3	40X	135	
			POTS	0647.1	0654 U	II	F,H	3	40X	80U	
			CULG	0649.0	0705.0	II	FN	1	28	65	
			CULG	0649.0	0706.0	II	SH,H	3	45	130	ESS 400
			CULG	0703.0	0704.0	III	G	3	25	180	
			POTS	0703.0	0704.1	UNCLF		2	40X	400	
			IZMI	0703.2	0704.6	III	GG	2	30	270X	
			CULG	0706.0	0708.0	III	G	1	30	90	
			IZMI	0706.0	0707.9	III	GG	2	30	180	
			IZMI	0715.9	0716.0	III	B	1	105	270X	
			POTS	0715.9	0716.0	III	G	1	200U	375	
			IZMI	0727.8	0729.1	III	G	2	45	95	
			LEAR	0808.0	0808.0	III		1	30	40	
			IZMI	0844.2	0844.3	III	G	2	35	65	
			POTS	0844.2	0900.8	III	GG	3	40X	400	
			LEAR	0849.0	0900.0	III	N	2	35	70	
			SVTO	0849.0	0900.0	III	N	1	35	85	
			IZMI	0849.2	0850.5	III	G	2	30	160	
			IZMI	0853.0	0853.3	III	G	2	30	160	
			IZMI	0853.8	0854.3	III	G	1	40	240	
			IZMI	0856.9	0859.1	III	G	2	25X	270X	
			IZMI	0900.4	0900.8	III	G	1	25X	90	
			POTS	1029.4	1029.5	III	B	1	40X	70	
			ONDR	1034.3	1036.0	DCIM	G	1	800X	1114	
			ONDR	1035.3	1038.0	DCIM	G,W	1	2322	4500X	
			SVTO	1051.0	1053.0	III		1	35	75	
			IZMI	1051.8	1052.5	III	GG	2	25X	215	
			POTS	1051.8	1053.6	III	GG	3	40X	400	
			IZMI	1052.8	1053.4	III	GG	2	25X	270X	
			POTS	1130.5	1130.7	III	G	2	40X	90U	
			POTS	1259.9	1310.2	III	GG	2	40X	90U	

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Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
27			SVTO	1305.0	1310.0	III		1	35	76	
			POTS	1332.7	1333.1	III	G	1	40X	90U	
			ONDR	1358.5	1400.0	DCIM	G	1	2889	4500X	
			SGMR	1430.0	1505.0	III	N	3	30	80	
			SVTO	1430.0	1505.0	III	N	1	35	85	
			POTS	1430.7	1431.0	III	G	2	40X	90U	
			POTS	1452.1	1505.4	III	GG	3	40X	90U	
			POTS	1452.2U	1453.1	V		3	40X	65	
			SGMR	1826.0	1851.0	III	N	1	30	60	
			PALE	1833.0	1907.0	III	N	1	25	65	
			PALE	2003.0	2132.0	III	N	1	25	60	
	2028	2400	HIRA								
	2040	2400	CULG	2106.0	2107.0	III	G	1	30	80	
			CULG	2128.0	2128.0	III	B	1	35	90	
			CULG	2304.0	2345.0	III	N	1	18	90	
			PALE	2319.0	2319.0	III		1	25	56	
			LEAR	2339.0	2344.0	III		1	30	55	
			PALE	2339.0	2344.0	III		1	25	77	
28	0000	0858	HIRA								
			LEAR	0053.0	0053.0	III		1	30	55	
			PALE	0053.0	0055.0	III		1	25	71	
	0000	0740	CULG	0053.0	0054.0	III	G	1	25	90	
			CULG	0135.0	0135.0	III	B	1	25	80	
			LEAR	0135.0	0135.0	III		2	30	43	
			LEAR	0200.0	0201.0	III		2	30	55	
			PALE	0200.0	0201.0	III		1	25	81	
			CULG	0201.0	0313.0	III	N	1	23	150	
			LEAR	0223.0	0250.0	III	N	2	30	60	
			LEAR	0301.0	0303.0	III		2	30	65	
			CULG	0445.0	0512.0	III	N	1	23	160	
			LEAR	0445.0	0447.0	III		1	30	50	
			LEAR	0506.0	0509.0	III		2	30	80	
			SVTO	0506.0	0508.0	III		1	36	60	
	0543	1630	POTS	0543 E	1613	I	S,W	1	110U	400	
			IZMI	0547.0E	0820.0U	I	N	2	200	270	
	0547	1200	IZMI	0547.0E	0617.0U	III	N	1	45	90	
	0713	1618	ONDR								
			IZMI	0745.2	0745.9	III	G	1	85	95	
			IZMI	0821.8	0822.2	III	G	2	190	270	
			LEAR	0837.0	0839.0	III	N	2	40	70	
			SVTO	0934.0	0935.0	III		1	35	59	
			IZMI	0935.1	0935.5	III	G	2	30	135	
			POTS	0935.3	0939.9	III	G	2	40X	90U	
			IZMI	0939.7	0939.9	III	B	2	45	80	
			IZMI	1052.4	1052.6	III	B	1	45	95	
			POTS	1052.4	1052.6	III	B	1	40X	150	
			POTS	1114.5	1114.7	III	B	1	40X	65	
			IZMI	1133.0	1133.7	III	G	1	45	90	
			POTS	1135.1	1135.2	III	G	2	110U	145	
			SVTO	1213.0	1216.0	III		1	35	61	
			POTS	1213.2	1216.1	III	G	2	40X	90U	
			SVTO	1453.0	1454.0	III		1	38	64	
			SGMR	1635.0	1704.0	III	N	2	30	70	
			PALE	2010.0	2011.0	III		1	25	65	
	2027	2400	HIRA								
	2040	2400	CULG	2129.0	2230.0	III	N	1	28	160	
			PALE	2144.0	2151.0	III		1	25	82	
29	0000	0740	CULG	0034.0	0037.0	III	G	1	23	90	
			LEAR	0036.0	0036.0	III		2	30	80	
			CULG	0053.0	0053.0	III	B	1	18	90	
			LEAR	0053.0	0053.0	III		2	30	80	
			CULG	0117.0	0123.0	III	G	2	18	150	
			LEAR	0117.0	0124.0	III		3	30	80	
	0000	0859	HIRA	0118.0	0119.0	III	B	2	30	150	
			CULG	0309.0	0310.0	III	G	2	18	80	
			LEAR	0309.0	0310.0	III		2	30	80	
			PALE	0309.0	0310.0	III		1	25	70	

SOLAR RADIO EMISSION
Spectral Observations

MARCH 2000

OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
29		CULG	0325.0	0407.0	III	N	1	28	90	
		LEAR	0327.0	0450.0	III	N	1	30	70	
		CULG	0515.0	0516.0	III	G	1	30	170	
		HIRA	0515.0	0516.0	III	B	2	50	180	
		LEAR	0515.0	0516.0	III		2	30	80	
		SVTO	0515.0	0515.0	III		1	35	85	
0606	1200	IZMI	0607.4	0607.5	III	B	2	45	95	
0543	1628	POTS	0617	0618	I	S	1	200U	250	
		IZMI	0622.1	0622.4	III	B	1	45	95	
		IZMI	0637.0	0637.4	III	G	1	45	95	
		POTS	0648	0649	I		1	200U	250	
		IZMI	0652.7	0657.4	III	GG,FS	2	40	145	
		CULG	0654.0	0657.0	III	G	1	30	130	
		SVTO	0655.0	0656.0	III		1	35U	85U	
		IZMI	0704.8	0707.4	I	GG,DC	2	45	63	
		IZMI	0707.1	0707.6	I	GG,DC	2	85	100	
0709	1620	ONDR								
		POTS	0712	0713	I	S	1	250	300	
		IZMI	0748.3	0749.8	III	GG	2	40	180	
		SVTO	0749.0	0749.0	III		1	35U	67U	
		IZMI	0812.6	0812.8	III	B	2	40	165	
		LEAR	0837.0	0839.0	III	N	2	40	70	
		IZMI	0838.0	0838.8	III	G,FS	2	40	135	
		POTS	0838.0	0846.7	III	G	2	40X	90U	
		SVTO	0838.0	0838.0	III		1	46	77	
		SVTO	0846.0	0846.0	III		1	35	73	
		IZMI	0846.1	0846.7	III	G,FS	2	40	210	
		IZMI	0853.3	0853.5	III	B	2	45	135	
		IZMI	0856.1	0856.4	III	G	2	120	175	
		IZMI	0935.3	0936.3	III	G	2	45	200	
		POTS	0935.4	0946.9	III	GG,RS,U	3	40X	400	
		IZMI	0938.1	0943.9	III	GG	2	25X	270X	
		LEAR	0939.0	0945.0	III		2	30	80	
		SVTO	0939.0	0945.0	III		1	35	85	
		IZMI	0944.7	0947.0	III	GG,FS	2	25X	180	
		POTS	1008	1517	III	N	1	40X	90U	
		POTS	1030 E	1204 U	I	S	1	110U	250U	
		SVTO	1104.0	1154.0	CONT		1	35	80	
		POTS	1115.2	1140.8	III	GG,RS	3	40X	400	
		IZMI	1127.9	1134.8	III	GG	2	25X	270	
		SGMR	1128.0	1129.0	III		2	30	80	
		SVTO	1128.0	1135.0	III		2	35	85	
		IZMI	1136.9	1140.7	III	G	1	95	160	
		SVTO	1329.0	1332.0	III		1	35	72	
		SVTO	1346.0	1347.0	III		1	35	51	
		SGMR	1442.0	1517.0	III	N	1	30	80	
		SVTO	1442.0	1443.0	III		1	35	85	
		POTS	1442.2	1443.3	III	G,RS	2	40X	250U	
		SVTO	1517.0	1517.0	III		1	37	62	
		SGMR	1719.0	1720.0	III		1	30	60	
		SGMR	1811.0	1821.0	III		2	30	80	
		PALE	1950.0	2007.0	III	N	1	25	60	
		SGMR	1950.0	2057.0	III	N	2	30	80	
2025	2400	HIRA	2032.0	2033.0	III	B	1	30	140	
2040	2400	CULG	2042.0	2043.0	III	G	1	30	150	
		PALE	2242.0	2243.0	III		1	25	60	
30		LEAR	0044.0	0044.0	III		2	30	80	
		PALE	0044.0	0044.0	III		1	25	180	
0000	0740	CULG	0044.0	0045.0	III	G	2	30	250	
0000	0900	HIRA	0044.0	0045.0	III	B	2	50	320	
		CULG	0056.0	0059.0	III	G	2	28	180	
		HIRA	0056.0	0058.0	III	G	2	40	240	
		LEAR	0056.0	0103.0	III		2	30	80	
		PALE	0056.0	0058.0	III		1	30	150	
		CULG	0224.0	0224.0	III	B	1	25	90	
		LEAR	0224.0	0224.0	III		1	30	67	
		PALE	0224.0	0232.0	III		1	30	55	
		CULG	0420.0	0422.0	III	G	3	18X	180	

SOLAR RADIO EMISSION
Spectral Observations

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OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
30		HIRA	0420.0	0423.0	III	G	3	40	240	
		LEAR	0420.0	0423.0	III		3	30	80	
		PALE	0420.0	0422.0	III		1	35	160	
		CULG	0524.0	0525.0	III	G	1	23	130	
		HIRA	0524.0	0525.0	III	B	1	25X	130	
		LEAR	0524.0	0525.0	III		2	30	75	
		SVTO	0524.0	0524.0	III		1	35	63	
		SVTO	0604.0	0604.0	III		1	50	73	
0559	1200	IZMI	0604.3	0604.7	CONT		2	45	65	
		IZMI	0634.3	0634.5	III	B	1	45	85	
		LEAR	0652.0	0659.0	III		2	30	75	
		SVTO	0652.0	0659.0	III		1	35	85	
		IZMI	0652.3	0652.9	III	G	2	25	255	
		CULG	0653.0	0653.0	III	B	2	28	110	
		CULG	0659.0	0659.0	III	B	1	30	70	
		IZMI	0659.3	0659.4	III	B	1	45	95	
		LEAR	0706.0	0714.0	III		3	30	80	
		SVTO	0706.0	0800.0	III	N	2	35	85	
		IZMI	0706.2	0708.2	III	G	2	25X	215	
		IZMI	0706.6	0710.0	III	S,C	1	45	270X	
		CULG	0707.0	0708.0	III	G	3	25	180	
		HIRA	0707.0	0708.0	III	B	2	30	240	
		ONDR	0708.0	0710.5	DCIM		1	800X	2000X	
0708	1619	ONDR	0709.0U	0710.4	DCIM		2	2332	4500X	
		CULG	0714.0	0714.0	III	B	1	30	60	
		IZMI	0714.0	0714.5	III	G	2	45	160	
		IZMI	0721.6	0727.5	III	GG,FS	2	40	95	
		LEAR	0723.0	0727.0	III		2	30	80	
		CULG	0724.0	0727.0	III	G	2	30	90	
		CULG	0737.0	0740.0D	III	G	1	30	150	
		LEAR	0738.0	0742.0	III		3	30	80	
		IZMI	0738.4	0742.9	III	GG	2	25	200	
		HIRA	0741.0	0742.0	III	B	1	30	160	
		IZMI	0741.2	0741.8	III	G	3	25X	270	
		HIRA	0803.0	0804.0	III	B	1	30	130	
		LEAR	0803.0	0803.0	III		2	30	80	
		IZMI	0803.4	0803.8	III	G	2	25	260	
		IZMI	0814.9	0815.0	III	G	2	230	270X	
		HIRA	0816.0	0817.0	III	B	1	50	140	
		LEAR	0816.0	0816.0	III		1	30	75	
		IZMI	0816.6	0816.8	III	G	2	35	160	
		IZMI	0821.9	0822.2	III	B	2	40	140	
		LEAR	0822.0	0822.0	III		1	30	75	
		HIRA	0847.0	0850.0	III	G	1	40	160	
		LEAR	0847.0	0849.0	III		2	30	80	
		SVTO	0847.0	0919.0	III	N	1	35	85	
		IZMI	0847.1	0849.9	III	GG	2	25X	230	
		LEAR	0904.0	0919.0	III	N	2	30	80	
		IZMI	0904.4	0905.8	III	GG	2	25X	260	
		IZMI	0912.9	0913.2	III	G	2	25	270X	
		IZMI	0919.4	0919.6	III	G	3	25	270	
		SVTO	1002.0	1005.0	V		2	35	85	
		IZMI	1002.2	1004.2	III	GG	3	25X	270X	
		IZMI	1002.3	1005.3	V	HARM	3	25X	180	
		LEAR	1003.0	1005.0	III		3	30	80	
		ONDR	1003.0	1003.4	DCIM	G,W	1	800X	2000X	
		IZMI	1023.7	1027.7	III	G	1	25	145	
		SVTO	1055.0	1055.0	III		1	37	70	
		IZMI	1055.1	1057.9	III	G	2	30	150	
		SGMR	1121.0	1121.0	III		2	30	80	
		SVTO	1121.0	1121.0	III		2	35	85	
		IZMI	1121.3	1121.9	III	G	2	25X	220	
		IZMI	1127.2	1127.4	III	B	1	40	95	
		SGMR	1307.0	1308.0	III		2	30	80	
		SVTO	1307.0	1308.0	III		1	35	85	
		SGMR	1358.0	1428.0	III	N	2	30	80	
		SVTO	1358.0	1400.0	III		1	35	73	
		SVTO	1427.0	1428.0	III		1	35	82	
		SGMR	1813.0	1813.0	III		1	30	55	

SOLAR RADIO EMISSION
Spectral Observations

MARCH 2000

OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
30		PALE	2002.0	2003.0	III		1	25	75	
2023	2400	HIRA								
2040	2400	CULG	2241.0	2241.0	III	G	1	23	130	
		CULG	2340.0	2340.0	III	B	1	35	90	
31		LEAR	0129.0	0133.0	III		2	30	65	
		PALE	0129.0	0252.0	III	N	1	25	137	
0000	0740	CULG	0129.0	0200.0	III	N	1	18	160	
		LEAR	0141.0	0158.0	III	N	2	30	80	
		CULG	0234.0	0254.0	III	N	1	28	150	
		LEAR	0234.0	0238.0	III		1	30	68	
		LEAR	0251.0	0251.0	III		1	30	75	
0000	0901	HIRA	0251.0	0252.0	III	B	1	50	200	
		LEAR	0335.0	0336.0	III		1	30	53	
		CULG	0336.0	0420.0	III	N	1	20	140	
		LEAR	0352.0	0355.0	III		1	30	50	
		LEAR	0418.0	0452.0	III	N	2	30	80	
		CULG	0439.0	0439.0	III	B	1	28	90	
		CULG	0453.0	0453.0	III	G	2	20	160	
		HIRA	0453.0	0454.0	III	B	2	25X	140	
		SVTO	0453.0	0459.0	III		1	35	77	
		CULG	0459.0	0459.0	III	B	1	23	120	
0523	1518	POTS	0523 E	1518 U	I	S,C,DC	2	40X	400	
		LEAR	0546.0	0547.0	III		2	30	57	
		SVTO	0546.0	0546.0	III		1	35	85	
		POTS	0546.5	0547.3	III	G	2	110U	170U	
		CULG	0547.0	0547.0	III	B	1	25	90	
		POTS	0609.8	0615.7	III	GG	2	110U	170U	
0601	1200	IZMI	0613.8	0615.5	III	GG,FS	2	45	160	
		IZMI	0619.2	0919.5	III	B,RS	2	45	65	
		IZMI	0705.7	0707.6	III	G	2	45	270X	
		POTS	0705.8	0711.9	III	GG,C	2	110U	325	
		SVTO	0707.0	0707.0	III		1	41	52	
		IZMI	0711.3	0711.4	III	B	2	200	270X	
		IZMI	0711.3	1200.0D	I	N	2	45	240	
		SVTO	0714.0	1005.0	CONT		1	35	85	
		LEAR	0717.0	0925.0	CONT		1	40	80	
		LEAR	0732.0	0733.0	III		2	30	60	
		IZMI	0732.1	0733.1	III	G	2	25X	145	
		POTS	0732.1	0733.1	III	G	3	40X	170U	
		CULG	0733.0	0733.0	III	G	1	30	130	
		IZMI	0752.0U	1200.0D	III	N	1	45	90	
		IZMI	0755.1	0755.7	III	G	2	40	130	
		LEAR	0824.0	0826.0	III		2	30	80	
		HIRA	0825.0	0826.0	III	B	1	40	160	
		IZMI	0825.9	0826.4	III	GG	2	25X	260	
		POTS	0825.9	0826.5	III	G	3	40X	250	
		SVTO	0826.0	0826.0	III		1	36	84	
		POTS	0850.9	0902.6	III	GG	3	40X	170U	
		IZMI	0901.8	0902.1	III	G	1	45	170	
		POTS	0911.4	0913.2	III	G	2	40X	150	
		IZMI	0912.4	0913.2	III	G	2	25	145	
		IZMI	0928.9	0930.1	III	G	2	55	170	
		POTS	0928.9	0930.1	III	G	3	110U	170U	
		POTS	1001.2	1001.5	III	G	2	40X	170U	
0813	1620	ONDR	1015.0	1017.0	DCIM	G	2	2000X	4500X	
		POTS	1017.4	1018.1	DCIM		2	400	700	
		POTS	1017.7	1025.5	II	SH,H	2	80	300	
		IZMI	1017.8	1020.5	II	HARM	2	50	270	
		POTS	1019.2	1020.6	II	F	2	40X	75	
		IZMI	1020.1	1022.4	IV		1	45	95	
		SVTO	1035.0	1059.0	IV		1	35	81	
		IZMI	1035.4	1057.0	III	S	2	25X	250	
		POTS	1035.5	1057.1	III	GG,C,RS	3	40X	250	
		SVTO	1121.0	1121.0	III		1	35	80	
		IZMI	1121.3	1121.8	III	G	2	30	135	
		POTS	1121.3	1121.8	III	G	2	40X	150	
		SVTO	1122.0	1651.0	CONT		1	35	85	
		IZMI	1136.2	1137.7	III	GG,FS	2	45	135	

SOLAR RADIO EMISSION
Spectral Observations

MARCH 2000

OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	EVENT Spectral Class	EVENT Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
31		POTS	1203.0	1207.3	III	GG,C,RS	3	40X	170U	
		POTS	1208.2	1209.5	III	G,C	2	40X	160	
		POTS	1257.4	1310.9	III	G,RS	3	40X	300	
		SVTO	1307.0	1416.0	III	N	1	35	85	
		SGMR	1308.0	1310.0	III		1	30	60	
		ONDR	1315.1	1318.0	DCIM	GG	2	800X	2000X	
		ONDR	1315.3	1316.1	DCIM	G	2	2254	4246	
		POTS	1328.8	1347.2	III	GG,RS	3	40X	250	
		SGMR	1333.0	1334.0	III		2	30	80	
		POTS	1355.2	1355.7	III	G	2	40X	75	
		POTS	1409	1503	III	N	1	40X	90U	
		SGMR	1430.0	1553.0	CONT		1	30	60	
		SGMR	1557.0	1559.0	V		3	30	80	
		SVTO	1557.0	1559.0	V		2	35	85	
		SGMR	1823.0	1830.0	III		1	30	60	
2021	2400	HIRA								
2040	2400	CULG	2040.0E	2310.0	I	S	1	80	160	
		CULG	2046.0	2142.0	III	N	1	20	90	
		PALE	2059.0	2059.0	III		1	25	60	
		SGMR	2059.0	2059.0	III		1	30	55	
		PALE	2133.0	2133.0	III		1	25	65	
		CULG	2303.0	2303.0	III	B	1	20	50	

Event Remarks:

B = Single burst	N = Intermittent activity in this period
C = Underlyling continuum (particularly with Type I)	MOV = Moving (Type IV)
DC = Drifting chains	MWB = Meter wave burst
DP = Drifting pairs	RS = Reverse slope burst
F = Fundamental emission (Type II)	S = Storm in the sense of intermittent but apparently connected actively
FS = Fine structures (Type IV)	SH = Secondary harmonic emission
G = Small group of bursts (<10)	STA = Stationary (Type IV)
GG = Large group of bursts (>10)	U = U-shaped burst of Type III
H = Herringbone	UE = Uncertain emission (Type II)
HARM = Harmonic	W = Weak

Frequency qualifiers:

X = Extends beyond instrument range

U = Uncertain frequency

Remarks:

SWF = Associated short wave fade observed
ESS = Estimated shock speed in km/s (Type II)
FLA = Associated flare observed (class optional)

Stations Reporting:

CULG = Culgoora IZMI = Izmiran LEAR = Learmonth ONDR = Ondrejov
PALE = Palehua POTS = Potsdam SGMR = Sagamore Hill SVTO = San Vito
BLEN = Bleien

NOTE: The sensitivity of the Potsdam receivers 40-90 MHz, 110-170 MHZ and 200-400 MHz was reduced during some days of the month.

SOLAR RADIO NOISE STORM AT 164 MHZ
FROM NANÇAY RADIOHELIOGRAPH
MARCH 2000

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
01/03/00	-0.17	-0.16	III	8H33 E	15H33 D
01/03/00	+0.70	-0.56	II	8H33 E	13H20 D
02/03/00*	+0.09	-0.33	IV	8H33 E	15H33 D
02/03/00*	+1.09	-0.73	III	8H33 E	15H33 D
03/03/00*	+0.42	-0.09	IV	8H33 E	15H33 D
04/03/00*	+0.42	-0.11	IV	8H32 E	15H32 D
05/03/00*	+0.81	-0.16	III	8H32 E	15H32 D
06/03/00	+1.01	-0.05	III	8H32 E	15H32 D
07/03/00	+1.15	-0.20	I	8H32 E	15H32 D
08/03/00	+1.15	-0.16	I	9H20	15H32 E
09/03/00*	+0.50	+0.12	I	13H13	15H32 D
09/03/00*	+1.43	-0.09	II	8H50 E	14H40 D
12/03/00	+0.76	+0.87	II	8H30 E	15H30 D
12/03/00	+1.16	+0.06	III	8H30 E	13H00
15/03/00	-1.36	-0.02	I	8H30 E	15H30 D
15/03/00	-0.56	-0.45	I	13H06	15H30 D
16/03/00	-1.09	-0.12	I	10H27 E	15H30 D
17/03/00	-0.88	-0.12	I	8H29 E	15H29 D
20/03/00*	-0.09	-0.26	I	8H43 E	15H29 D
20/03/00*	+0.98	+0.59	III	11H00	15H29 D
21/03/00	-0.19	+0.42	I	8H43 E	15H28 D
21/03/00	+0.73	+0.70	II	8H43 E	15H28 D
21/03/00	+1.04	+0.03	I	8H43 E	15H28 D
22/03/00	-0.88	-0.23	I	9H03 E	15H28 D
22/03/00	-0.23	+0.33	I	12H42	15H28 D
22/03/00	+0.84	+0.73	I	9H03 E	15H28 D
23/03/00*	+0.06	+0.39	III	8H27 E	15H27 D
24/03/00*	+0.29	+0.26	III	8H27 E	15H27 D
24/03/00*	+1.44	+0.25	I	8H27 E	15H27 D
25/03/00	+0.33	+0.36	III	8H54 E	15H27 D
26/03/00	+0.57	+0.40	V	8H27 E	15H27 D
27/03/00	-0.36	-0.26	II	9H56 E	15H26 D
27/03/00	+0.96	+0.51	II	9H56 E	15H26 D
28/03/00	-0.09	-0.22	I	8H26 E	11H34 D
28/03/00	+1.09	+0.05	II	8H26 E	9H50
29/03/00	-0.12	-0.19	II	8H37 E	15H25 D
31/03/00	-0.05	+0.20	III	8H46 E	15H25 D

[1] POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT

[2] IMP1: FLUX< 5 SFU IMP2: 5< FLUX < 20 SFU IMP3: 20< FLUX <100 SFU
IMP4: 100< FLUX <300 SFU IMP5> 300 SFU

[3] E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANÇAY OBSERVATIONS
D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

SOLAR RADIO NOISE STORM AT 327 MHZ
FROM NANÇAY RADIOHELIOGRAPH

MARCH 2000

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
01/03/00	-0.09	-0.14	III	8H33 E	15H33 D
01/03/00	+0.79	-0.23	II	11H50	15H33 D
02/03/00*	+0.12	-0.20	IV	8H33 E	15H33 D
03/03/00*	+0.39	-0.06	III	8H33 E	15H33 D
04/03/00*	+0.68	-0.02	III	8H32 E	15H32 D
05/03/00*	+0.79	-0.14	III	8H32 E	15H32 D
06/03/00	+0.98	-0.16	III	8H32 E	15H32 D
07/03/00	+1.15	-0.16	II	8H32 E	15H32 D
08/03/00	+0.31	+0.08	I	8H31 E	15H32 D
09/03/00*	+0.47	+0.09	I	8H50 E	15H32 D
11/03/00	+0.84	-0.09	I	8H30 E	10H20
12/03/00	+0.79	+0.56	II	11H50	15H30 D
12/03/00	+1.12	+0.14	III	8H30 E	15H30 D
15/03/00	-0.56	+0.20	I	8H30 E	15H30 D
15/03/00	-0.43	-0.33	I	13H10	15H30 D
16/03/00	+0.68	-0.17	I	10H27 E	12H00
17/03/00	-0.68	-0.16	I	8H29 E	15H29 D
17/03/00	+1.04	-0.14	III	8H29 E	15H29 D
20/03/00*	-0.06	-0.17	I	8H43 E	15H29 D
20/03/00*	+0.71	+0.45	II	11H05	15H29 D
20/03/00	+0.05	+0.53	I	8H43 E	15H29 D
20/03/00	+0.29	+0.78	I	8H43 E	15H29 D
20/03/00	+1.30	-0.22	I	8H43 E	15H29 D
21/03/00	+0.53	-0.14	II	8H43 E	15H28 D
21/03/00	+0.71	+0.47	III	8H43 E	15H28 D
21/03/00	+1.07	+0.39	III	8H43 E	15H28 D
22/03/00	-0.93	-0.29	I	9H03 E	15H28 D
22/03/00	+0.54	+0.45	I	9H03 E	15H28 D
22/03/00	+0.79	+0.60	I	9H03 E	15H28 D
22/03/00	+1.10	+0.20	I	9H03 E	15H28 D
23/03/00*	-0.65	-0.08	II	8H27 E	13H00
23/03/00*	-0.03	+0.31	II	8H27 E	15H27 D
23/03/00*	+0.84	+0.76	II	8H27 E	15H27 D
24/03/00*	-0.57	-0.37	I	8H27 E	15H27 D
24/03/00*	+0.25	+0.31	II	8H27 E	15H27 D
24/03/00*	+1.33	+0.26	I	8H27 E	15H27 D
25/03/00	-0.14	-0.16	I	8H54 E	15H27 D
25/03/00	+0.28	+0.28	I	8H54 E	15H27 D
25/03/00	+0.45	+0.33	I	8H54 E	15H27 D
26/03/00	+0.62	+0.33	III	8H50 E	15H27 D

26/03/00	+1.30	+0.36	III	8H50 E	15H27 D
27/03/00	-0.34	-0.16	I	9H56 E	15H26 D
27/03/00	+1.29	+0.17	I	9H56 E	15H26 D
28/03/00	-0.12	-0.19	I	8H26 E	11H34 D
29/03/00	-0.54	-0.17	I	8H37 E	15H25 D
31/03/00	-0.14	-0.16	I	8H46 E	15H25 D

18,19 MARCH 2000: NO DATA

OTHERS DAYS: NO DETECTABLE NOISE STORM

- For the days marked by an asterisk, intense ionopheric gravity waves are observed during the whole day. Without a more detailed analysis leading to increased uncertainties in the deviation, the positions which are indicated are estimated within ± 0.2 Rs

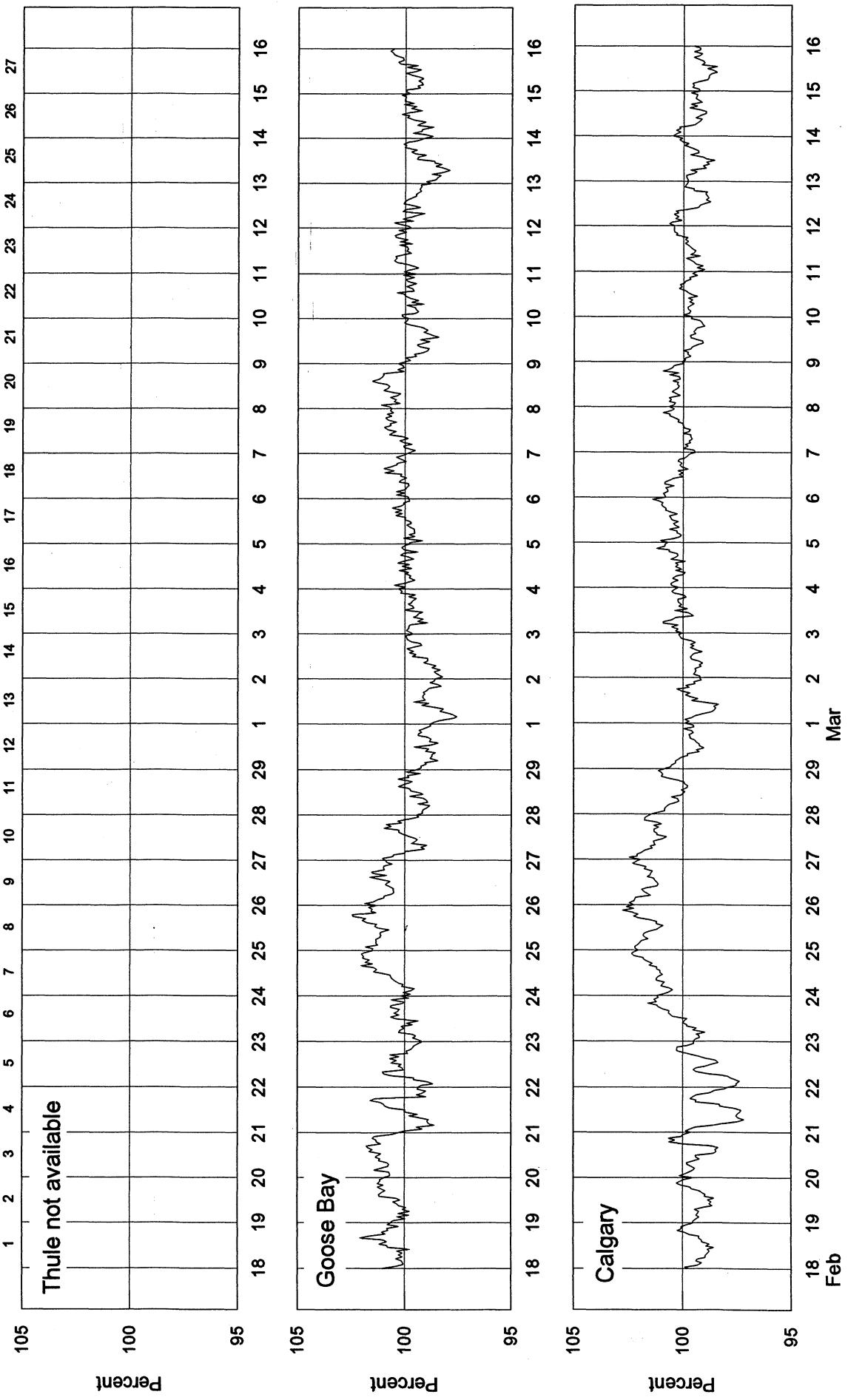
**** For this day, sporadic activity above the east limb spread between ± 0.5 Rs SN

COSMIC RAY INDICES
(Neutron Monitor)
March 2000

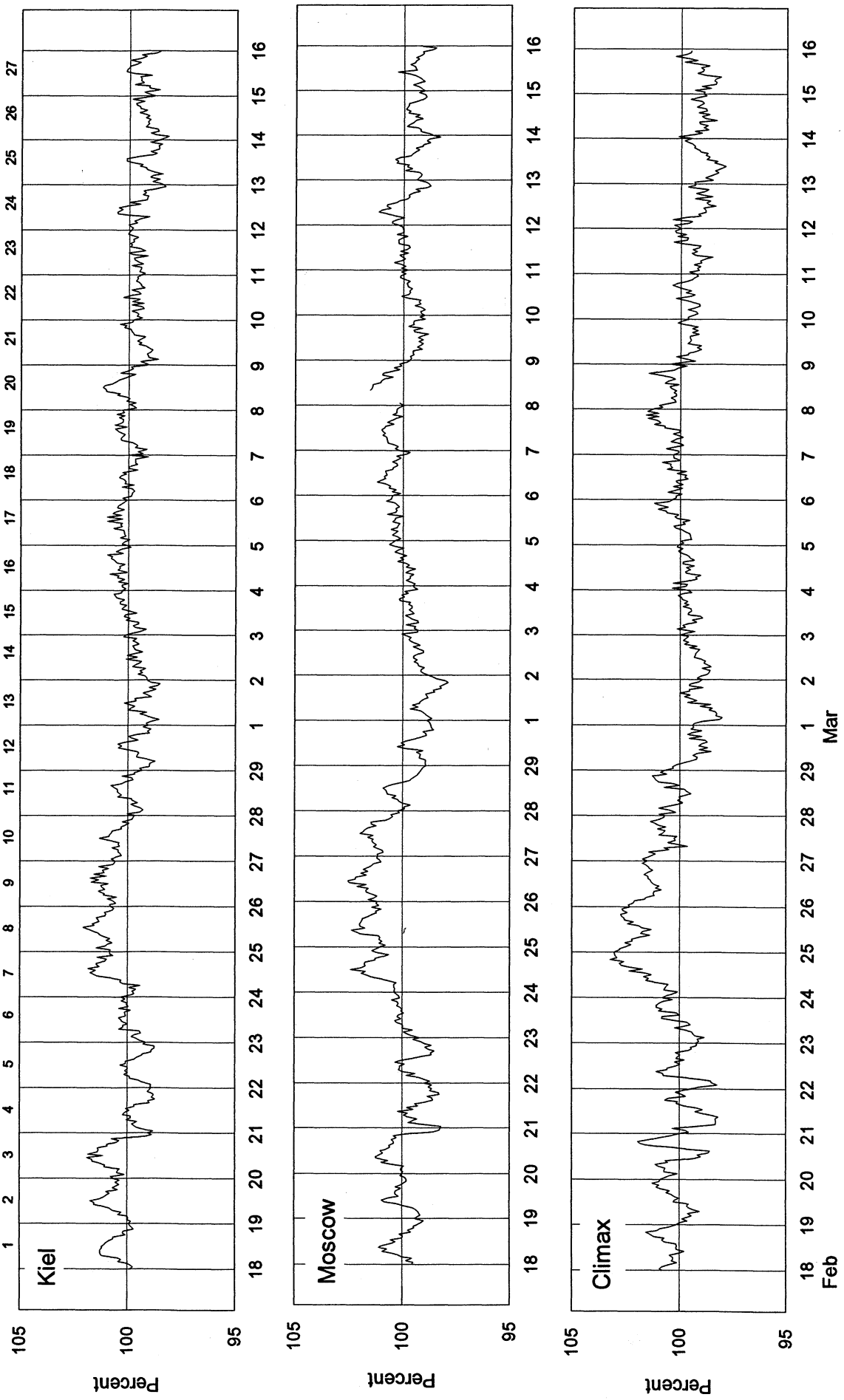
Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	No data	6491.2	3536.2	5642.6	8328.2	3744.3	1927.4	3486.0
2	at time of	6524.8	3540.3	5664.7	8377.3	3748.6	1925.3	3484.8
3	publication	6556.2	3566.0	5688.8	8402.8	3767.6	1929.5	3501.8
4		6577.8	3572.3	5710.6	8424.7	3770.4	1933.3	3505.0
5		6574.1	3579.5	5708.9	8461.5	3786.7	1933.7	3514.6
6		6594.7	3570.3	5683.0	8473.3	3788.3	1935.2	3515.5
7		6604.9	3558.5	5694.0	8477.7	3802.9	1941.7	3517.4
8		6625.7	3573.0	5700.7	8490.6(18)	3800.6	1942.0	3511.6
9		6539.4	3541.3	5657.5	8377.9	3764.9	1926.3	3494.1
10		6565.0	3549.5	5663.9	8398.9	3766.1	1920.2	3489.8
11		6583.3	3548.7	5668.8	8434.5	3760.4	1929.2	3500.5
12		6559.8	3547.2	5663.0	8433.3	3752.4	1929.2	3490.5
13		6515.7	3540.0	5632.0	8386.6	3736.0	1924.3	3494.0
14		6550.5	3543.0	5637.4	8380.9	3746.4	1923.1	3500.8
15		6568.8	3526.7	5654.5	8374.7	3745.5	1934.5	3503.7
16		6584.5	3522.8	5660.7	8380.7	3750.5	1953.8	3501.0
17		6595.6	3538.5	5653.5	8386.9	3752.3	1952.0	3500.5
18		6613.2	3563.7	5668.3	8414.4	3766.1	1960.0	3487.4
19		6562.5	3563.3	5666.0	8387.2	3756.0	1966.2	3482.0
20		6555.0(8)	3570.3	5647.1	8374.8	3777.8	1960.6	3492.1
21		6588.0(7)	3568.0	5648.0	8384.5	3765.6	1962.9	3492.9
22		6546.3	3552.2	5632.7	8363.7(20)	3742.5	1959.6	3479.6
23		6439.6	3502.8	5578.0	8245.7(16)	3698.6	1950.2	3462.2
24		6458.5	3487.5	5569.1	8252.1(18)	3688.0	1949.8	3443.6
25		6463.1	3485.7	5575.2	8281.1(15)	3672.0	1950.2	3456.5
26		6517.8	3531.7	5615.7	8310.5	3706.5	1955.8	3465.9
27		6510.3	3529.5	5638.2	8340.1	3719.6	1958.1	3466.1
28		6507.5(8)	3529.7	5626.8	8360.2	3730.7	1955.0	3476.4
29		---	3546.7	5630.3	8367.1	3730.0	1949.0	3457.0
30		6497.7(12)	3529.2	5614.5	8295.0	3712.2	1946.2	3466.8
31		6517.3	3545.3	5644.2	8324.2(23)	3736.3	1958.6	3483.6
Mean		6546.3	3543.8	5649.6	8377.1	3747.9	1943.3	3487.9

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

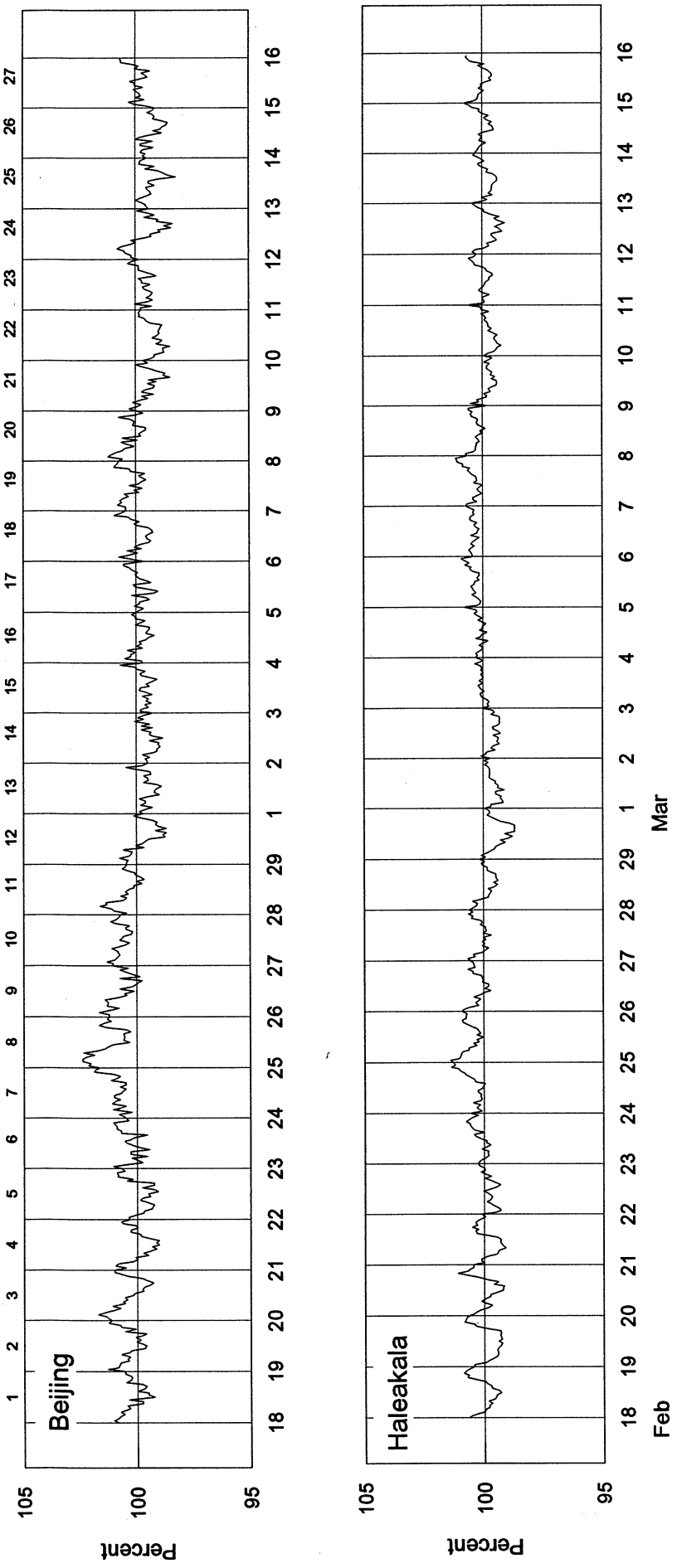
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2274 - Beginning 18 Feb 2000



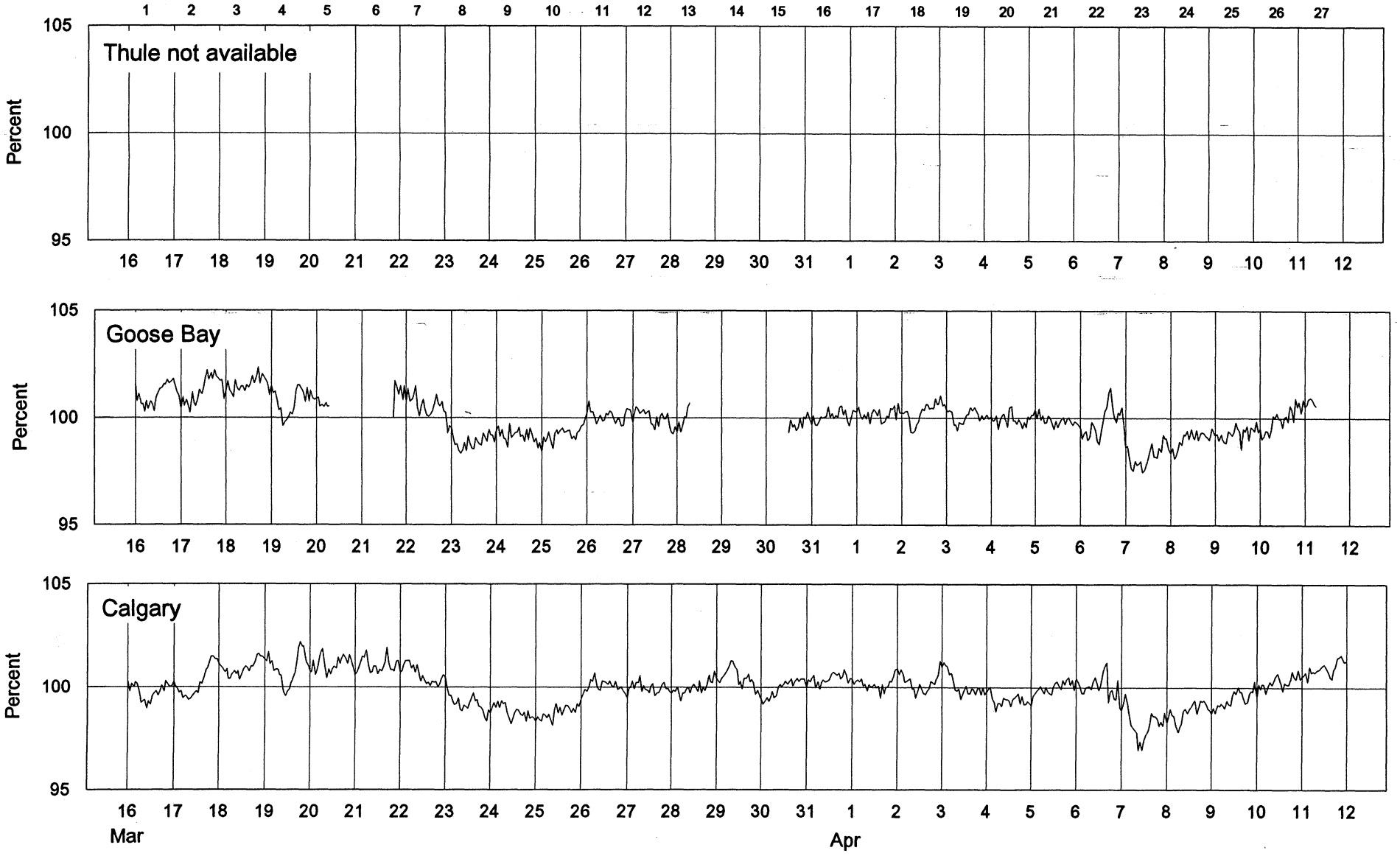
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2274 - Beginning 18 Feb 2000



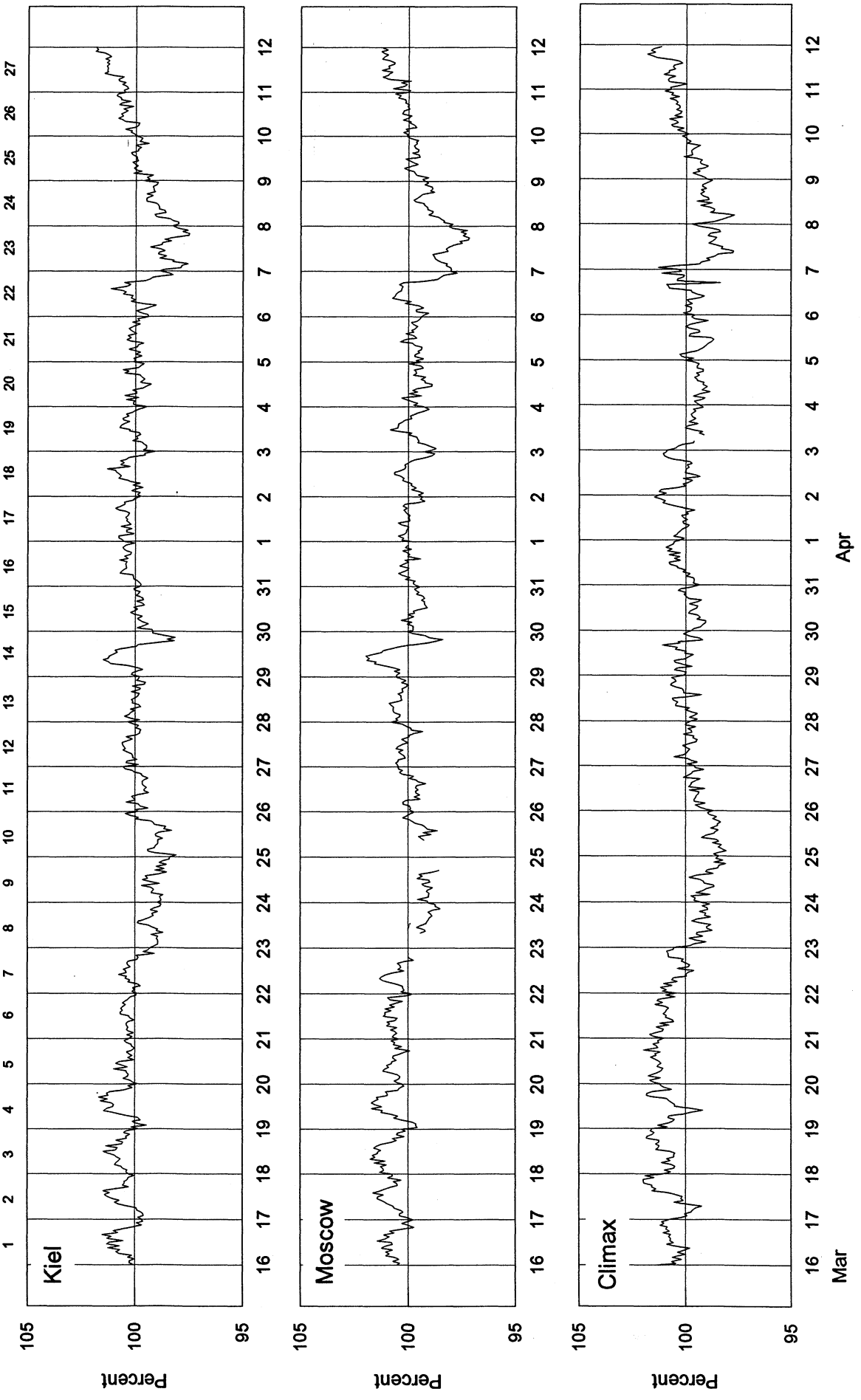
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2274 - Beginning 18 Feb 2000



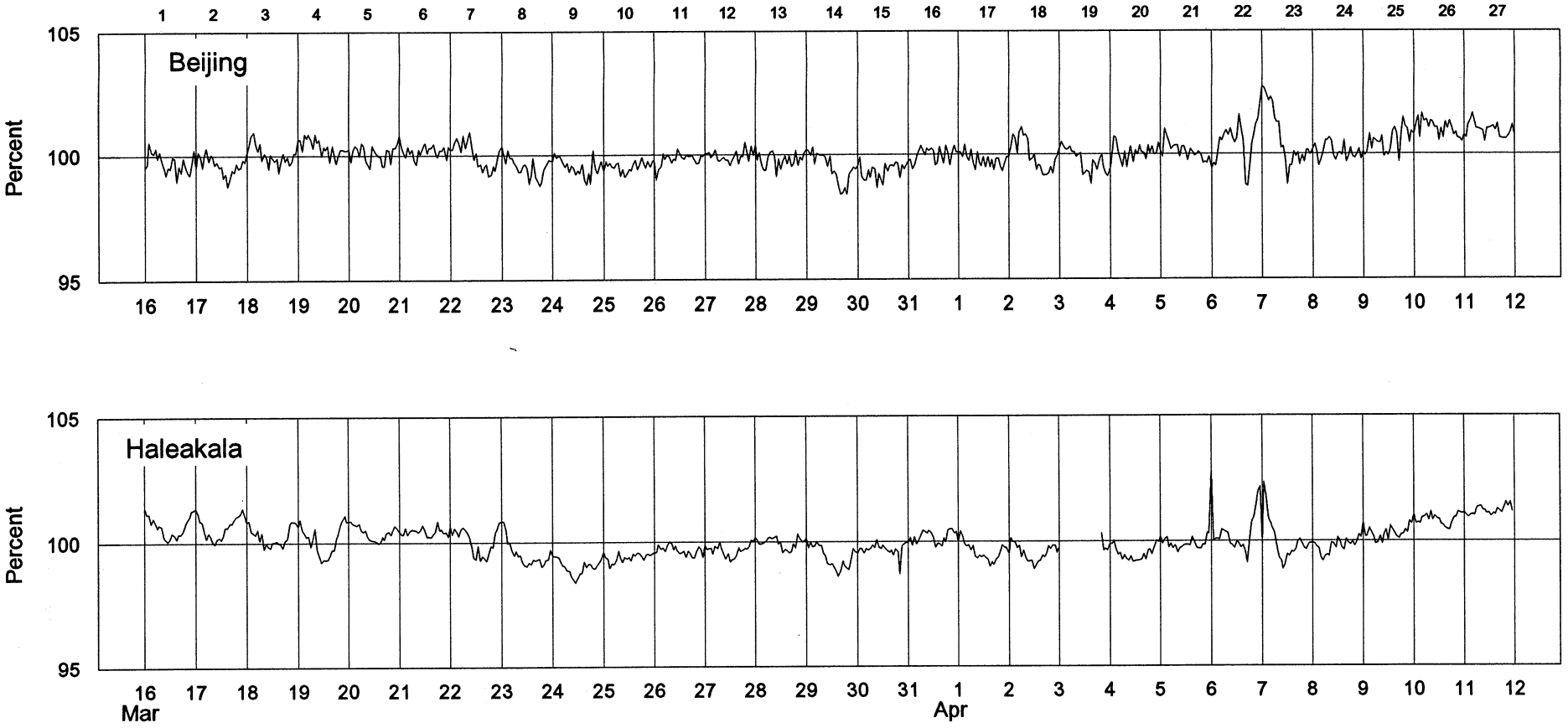
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2275 - Beginning 16 Mar 2000



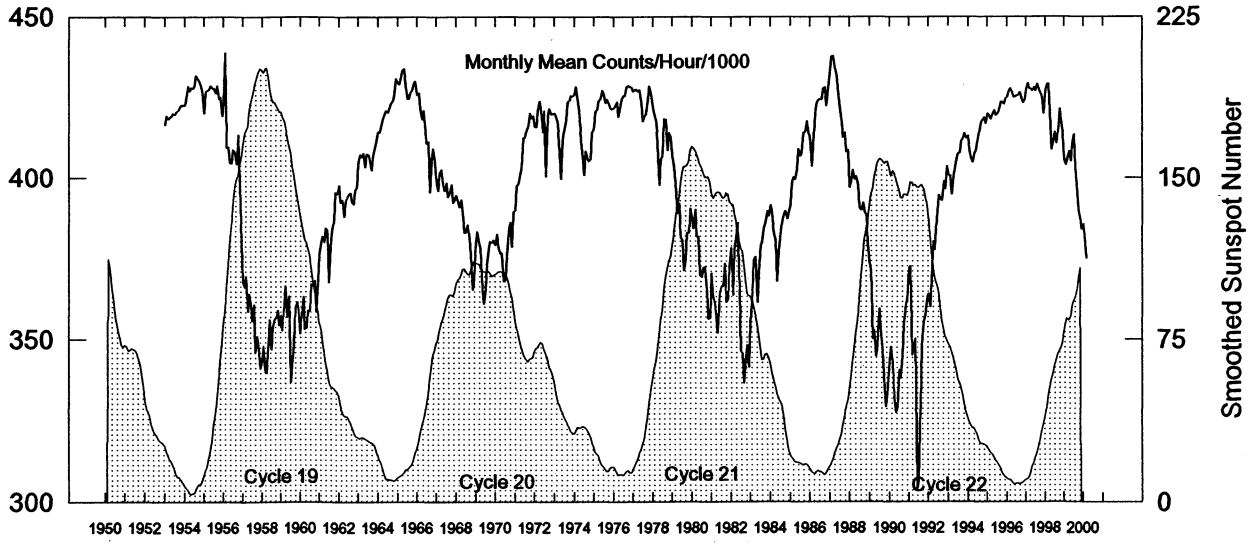
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2275 - Beginning 16 Mar 2000



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2275 - Beginning 16 Mar 2000



Climax Neutron Monitor Pressure-Corrected Values
Jan 1953 - Mar 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1953	4165	4193	4182	4188	4190	4200	4197	4205	4208	4216	4225	4226	4200
1954	4225	4247	4285	4269	4280	4277	4284	4318	4308	4303	4286	4269	4279
1955	4200	4267	4272	4273	4287	4278	4279	4263	4286	4245	4252	4193	4258
1956	4234	4388	4097	4097	4049	4045	4088	4083	4044	4134	3980	3799	4087
1957	3677	3660	3695	3585	3640	3603	3557	3606	3458	3509	3484	3410	3574
1958	3435	3479	3400	3396	3490	3560	3467	3537	3561	3564	3589	3542	3502
1959	3573	3526	3606	3664	3567	3633	3367	3420	3484	3597	3615	3587	3553
1960	3516	3573	3631	3532	3534	3589	3587	3670	3670	3682	3586	3681	3604
1961	3761	3801	3819	3800	3843	3838	3675	3784	3834	3870	3955	3950	3828
1962	3977	3922	3931	3878	3927	3940	3950	3954	3924	3919	3963	3971	3938
1963	4049	4073	4065	4077	4033	4075	4072	4060	4024	4066	4094	4111	4067
1964	4144	4139	4168	4181	4198	4208	4202	4213	4232	4240	4254	4307	4207
1965	4294	4290	4314	4335	4340	4288	4247	4246	4267	4271	4294	4300	4291
1966	4258	4262	4211	4180	4207	4146	4108	4112	3956	4055	4091	4053	4137
1967	3991	3960	4014	4025	3974	3960	3985	3939	3955	3980	3922	3933	3970
1968	3946	3925	3909	3932	3895	3830	3830	3853	3817	3761	3652	3685	3836
1969	3801	3831	3798	3782	3656	3609	3652	3730	3781	3803	3798	3807	3754
1970	3792	3824	3781	3765	3765	3679	3684	3755	3832	3862	3786	3895	3785
1971	3898	3975	3981	4003	4032	4124	4124	4152	4156	4200	4184	4192	4085
1972	4162	4157	4209	4237	4215	4141	4207	4005	4198	4214	4198	4198	4178
1973	4200	4193	4173	4075	3997	4119	4150	4180	4235	4240	4255	4253	4173
1974	4261	4283	4237	4207	4121	4077	4009	4083	4061	4054	4058	4140	4133
1975	4155	4206	4210	4239	4244	4271	4262	4231	4243	4231	4218	4213	4227
1976	4216	4223	4236	4188	4218	4244	4254	4253	4283	4287	4285	4280	4247
1977	4268	4272	4274	4267	4272	4231	4175	4193	4197	4245	4284	4260	4245
1978	4213	4198	4173	4107	3976	4058	4068	4183	4180	4085	4139	4128	4126
1979	4071	4034	3983	3888	3920	3814	3806	3710	3745	3829	3829	3905	3878
1980	3873	3842	3900	3819	3817	3697	3692	3719	3723	3647	3564	3564	3738
1981	3703	3623	3616	3561	3518	3643	3663	3662	3732	3613	3624	3726	3640
1982	3780	3634	3778	3819	3860	3650	3463	3456	3364	3444	3482	3413	3595
1983	3550	3643	3744	3753	3613	3700	3789	3798	3845	3860	3897	3881	3756
1984	3915	3896	3830	3806	3677	3773	3813	3865	3891	3897	3871	3890	3844
1985	3919	3985	4002	3995	4026	4088	4066	4075	4139	4139	4174	4141	4062
1986	4128	4036	4098	4199	4232	4242	4243	4244	4277	4280	4221	4277	4206
1987	4331	4376	4378	4346	4323	4254	4216	4170	4123	4139	4080	4084	4235
1988	3970	3997	4024	3995	4005	3981	3906	3899	3923	3893	3886	3798	3940
1989	3731	3717	3500	3527	3446	3478	3594	3535	3467	3347	3291	3349	3499
1990	3432	3476	3424	3317	3275	3283	3406	3377	3450	3540	3608	3620	3434
1991	3719	3725	3451	3470	3501	3041	3062	3293	3482	3550	3570	3628	3458
1992	3639	3600	3684	3803	3776	3876	3945	3939	3928	3989	3966	4036	3848
1993	4011	4007	3947	4003	4028	4061	4075	4076	4113	4122	4138	4122	4059
1994	4130	4079	4058	4048	4076	4085	4117	4140	4173	4179	4187	4168	4120
1995	4198	4194	4180	4199	4208	4193	4198	4209	4235	4236	4228	4246	4210
1996	4249	4266	4276	4269	4252	4250	4254	4256	4264	4243	4231	4242	4254
1997	4273	4293	4278	4274	4268	4281	4268	4290	4278	4260	4255	4199	4268
1998	4270	4290	4291	4160	4087	4116	4142	4107	4141	4212	4175	4133	4177
1999	4056	4040	4057	4083	4050	4106	4133	4031	3953	3899	3870	3840	4010
2000	3855	3822	3748										3808

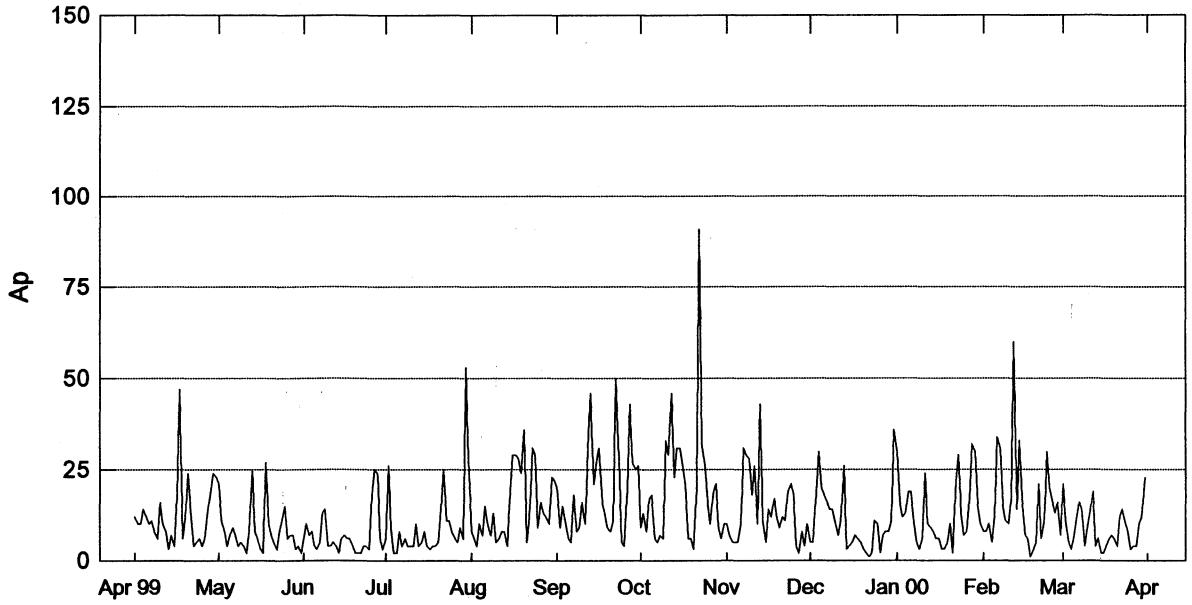
Multiply table entries by 100 to obtain hourly counting rate. Climax, Colorado: N39, W106, Alt=3400 m, Cutoff Rigidity=2.99GV (1980).
NOTE: Data may differ from previously reported values due to subsequent cleanup of data and slight changes in the averaging algorithm. See http://astro.uchicago.edu/home/web/pyle/neutron.html for latest changes. Sunspot numbers are preliminary after Sep 98.

Geomagnetic Activity Indices
March 2000

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	Am	aa Provisional N	S	M	
1	D2	2+	4-	4+	4-	3+	3+	3	4+	28	21	1.1	3-	3o	3+	3+	3o	3+	3-	4-	34	45	26	33	38	
2		5-	3+	2-	1	2	1	1-	2	16+	11	0.6	3+	3-	2-	1+	2-	1+	1-	2-	15	20	10	20	11	
3		1	0+	0+	1	2	1+	2+	2-	10	5	0.2	1+	1-	0+	1-	2o	1+	3-	2-	10	13	8	8	14	CC
4	Q5	0	0	0+	1-	2-	2	1-	1-	6	3	0.1	0+	0o	0+	0+	2-	2-	1o	1o	6	8	7	4	10	CC
5		0+	2	1-	1	1+	2-	2	3	12	6	0.3	1-	2-	1-	1o	1+	2o	2+	3o	13	15	12	8	19	K
6		2-	2+	3	3	3-	3	2+	3	21	12	0.7	2-	2+	3o	3-	3-	3-	3-	3o	24	31	19	18	33	
7	D4*	3	4-	3+	3	3	3	3-	3+	25	16	0.9	3o	3o	3o	3o	3o	2+	3-	3+	28	28	18	22	24	
8	D5*	2+	3-	2-	3	3	4	4-	2	22+	14	0.8	2o	2+	2o	3o	3-	4-	3+	3-	25	30	15	16	30	
9	Q8	2+	1-	0+	1-	2-	1-	1	1	8+	4	0.1	2+	0+	0o	1-	2-	0+	1+	1o	7	11	5	7	9	C
10		1	1-	1+	2	2+	2+	2	4	16-	9	0.5	1o	1o	2-	3-	3-	2o	2o	4-	18	18	18	13	23	
11		4-	3+	3-	2-	4-	2	1+	2+	21-	13	0.7	3+	2+	3-	2o	3o	2-	2-	2o	20	28	12	19	21	
12	D3*	3-	4-	4	4+	4	3	2	2+	26	19	1.0	2+	3o	4-	4-	4-	3-	2o	2+	30	36	30	37	30	
13	Q10	3-	1+	0+	0	0	0	2-	2-	8-	4	0.1	2+	1+	1-	0o	0o	0o	2-	2-	7	11	7	10	9	C
14		2	2-	1	2-	1	1+	2-	2-	12	6	0.2	2-	1+	1+	2+	1o	2o	2-	2+	12	16	12	12	16	C
15	Q1	1-	0	0+	0+	0+	1-	0+	0	3-	2	0.0	1-	0o	0+	0+	0o	1o	1-	0o	3	5	4	4	5	CC
16	Q2	0	0	0	0+	0+	1-	1-	1	3	2	0.0	0o	0o	0o	0o	0+	1-	1o	1+	3	5	6	3	8	CC
17	Q9	2	1+	2-	2-	2-	0+	0+	0	9	4	0.1	2o	1+	2-	2o	1+	0+	0+	0o	8	9	10	14	5	CC
18		0	0+	0+	2-	2-	2	3	2-	11-	6	0.2	0+	1-	1o	2-	2-	1+	2+	2-	10	13	9	7	16	CK
19		2	3	2	2-	2	2-	2-	1	15	7	0.4	2-	3-	2o	2-	1+	2-	2o	1+	13	15	14	18	11	
20		1	0+	1+	3	3-	1-	0+	1-	10	6	0.3	1+	1-	1+	3-	3-	1o	0o	0+	10	13	16	17	12	K
21	Q6	0+	0+	1+	1-	2-	2-	1+	0	7+	4	0.1	0+	0+	2-	1-	1+	1+	1+	0o	6	11	7	7	11	CK
22		2-	2+	3-	2	3	3+	3+	3-	21	12	0.7	2-	2+	3-	2+	3-	3-	3+	3-	23	28	19	21	26	
23		3	3+	3-	3	4-	3+	1+	1	21+	14	0.8	3-	3-	2+	3o	3+	3o	2-	2-	22	33	28	31	30	
24		2+	2+	1+	3	4-	3+	1+	2-	19	11	0.6	2o	2o	2-	3-	4-	3-	2-	2-	19	26	21	21	26	
25		2	2+	2+	2-	1+	3	3-	0+	16-	8	0.4	2o	2o	2+	2-	1+	3o	3-	1-	16	19	12	15	17	
26	Q3	0+	0	1-	1-	1-	2-	1+	1+	7-	3	0.1	0+	0+	1-	1-	1-	2o	1+	1+	7	6	8	5	9	CK
27	Q4	1	1+	1	1-	1+	1-	1-	1	8-	4	0.1	1+	1+	1-	1-	1o	1-	1-	1o	6	9	4	6	7	CC
28	Q7	2-	2-	1+	1+	1-	1-	0+	0	8-	4	0.1	2-	2-	2-	1+	0+	1-	0+	0+	7	6	6	9	4	CC
29		0+	0+	1-	1	1	1	4	4+	13-	10	0.5	0+	0+	0+	1o	1o	1-	3+	4o	14	21	14	5	30	
30		3	2+	2-	1	2+	2+	4+	3-	20-	12	0.7	3-	2o	2o	1+	2+	2+	4-	3o	22	29	34	18	46	
31	D1	3+	5-	4-	4-	4+	3-	3+	4-	29+	23	1.1	3-	4o	3+	3+	4-	2+	3+	3+	37	42	46	48	40	
Mean											9	0.44									15.3	19.5	14.8	17.1		

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1	2+	3o	4-	3+	3+	3+	3-	4-	35	3-	3o	3+	3+	3-	3o	3o	4o	34	228.7	138	145	185	
2	4-	3-	2-	1o	2-	1+	1-	2o	16	3+	3-	1+	1+	2-	1o	1o	2-	14	209.6	130	134	164	
3	1o	0+	0+	1o	2o	1+	3-	2o	10	1+	1o	0+	1-	2-	1o	2+	2-	9	200.4	114	119	154	
4	0+	0o	0+	1-	2o	2+	1-	1-	6	1-	0o	0o	0+	1o	1+	1o	1+	5	197.0	113	117	151	
5	0+	2-	1-	1+	2-	2+	2o	3-	12	1-	1+	1o	1o	1+	2-	3-	3+	13	216.8	113	133	172	
6	2-	2+	3o	3-	3-	3o	3-	3o	25	2o	3-	3o	3-	3-	2+	2+	3o	23	219.1	129	146	175	
7	3-	3o	3o	3o	3+	3-	3-	3+	30	3o	3o	3-	3+	3-	2-	3-	3+	27	218.5	155	157	174	
8	2-	2o	2-	3o	3-	4-	3+	2+	26	2o	2+	2+	3o	3-	3o	3o	3o	24	211.8	137	160	167	
9	2o	0+	0o	0+	2-	1o	1+	1o	7	2+	1-	0o	1-	1+	0o	1o	1-	6	203.0	146	146	157	
10	1-	1-	1+	3-	3-	2+	2o	4-	18	1o	1+	2-	2+	2o	2o	2o	4-	17	200.7	137	145	155	
11	3o	3-	3o	2+	3+	2o	2-	2o	22	3+	2-	2+	2-	3-	1+	2-	2+	18	200.6	127	141	155	
12	3-	3-	4-	4-	4-	3-	2+	2+	31	2+	3+	4-	4-	4-	3-	2o	2+	31	200.8	122	132	155	
13	2+	1+	1-	0o	0+	0o	2-	2-	7	2+	1+	1-	0+	0o	0o	2-	2-	7	186.0	121	117	139	
14	2-	1+	1+	2+	1+	2+	2o	2+	14	1+	1+	1+	2o	1o	1+	1+	2o	10	180.6	115	109	133	
15	1-	0o	0+	1-	0+	1+	1o	0o	4	1-	0o	0+	0o	0o	0+	0+	0o	2	175.9	103	112	128	
16	0o	0o	0o	0+	0+	1o	1o	1+	4	0o	0+	0o	0o	0+	0+	1o	1+	3	182.5	100	112	135	
17	2-	1o	2-	2o	1+	0+	0+	0+	8	2o	1+	2o	2o	1+	0+	0+	0o	9	190.6	95	95	144	
18	0o	0+	1-	1+	2-	2-	3-	2o	10	1-	1o	1+	2-	2-	1o	2+	1+	9	193.0	101	129	146	
19	2-	3-	2o	2-	2-	2o	2o	1+	14	2o	3-	2o	1+	1+	1+	2-	1+	13	206.5	126	155	161	
20	1o	0+	1o	3-	3o	1+	0+	0+	10	1+	1+	2-	2+	2o	1-	0o	1-	9	208.7	150	160	163	
21	0o	0o	1+	1-	2-	2o	1+	0o	6	0+	1-	2-	1-	1o	1o	1+	0o	6	228.9	148	151	185	
22	1+	2+	2+	3o	3o	3o	3+	3-	25	2o	2+	3o	2-	3-	2+	3+	3-	21	232.2	156	178	189	
23	3-	3-	2+	3o	3+	3o	2-	2-	22	3-	3-	3-	3-	3o	3o	2-	2-	22	222.7	182	205	179	
24	2-	2-	2-	3-	3+	3-	2o	2-	18	2+	2+	2-	3-	4-	3-	2-	1+	20	217.7	188	215	173	
25	2+	2o	2+	2o	1+	3o	3-	1-	17	2o	2o	2+	2-	1+	3-	2+	1-	14	204.1	185	184	158	
26	0+	0+	1-	1o	1-	3-	1+	2-	8	1-	1-	1o	1-	1-	2-	1+	1+	7	210.4	170	183	165	
27	1+	1+	1o	1o	1+	1-	1-	1o	7	1+	1+	1-	0+	1-	0+	1-	1o	6	204.1	155	171	158	
28	2-	2-	2-	2-	0+	1o	1-	0+	8	2-	2o	2-	1o	0+	0+	0o	0+	6	200.3	169	159	154	
29	0+	0+	1-	1+	1+	1o	3+	4o	16	0+	0+	0+	1o	1-	1-	3o	4-	13	208.3	148	151	163	
30	3o	2+	2o	1+	2+	2+	4-	3-	23	3-	2o	2o	1+	2o	2o	4-	3o	20	205.1	148	173	160	
31	3-	4-	3o	4-	4-	3-	4-	4-	37	3o	4+	4-	3+	3+	2o	3+	3o	37	225.1	164	174	181	
Mean									16.0									14.7	206.1	138.2	148.6	160.6	

Daily Average Indices Ap
Apr 1999 - Mar 2000

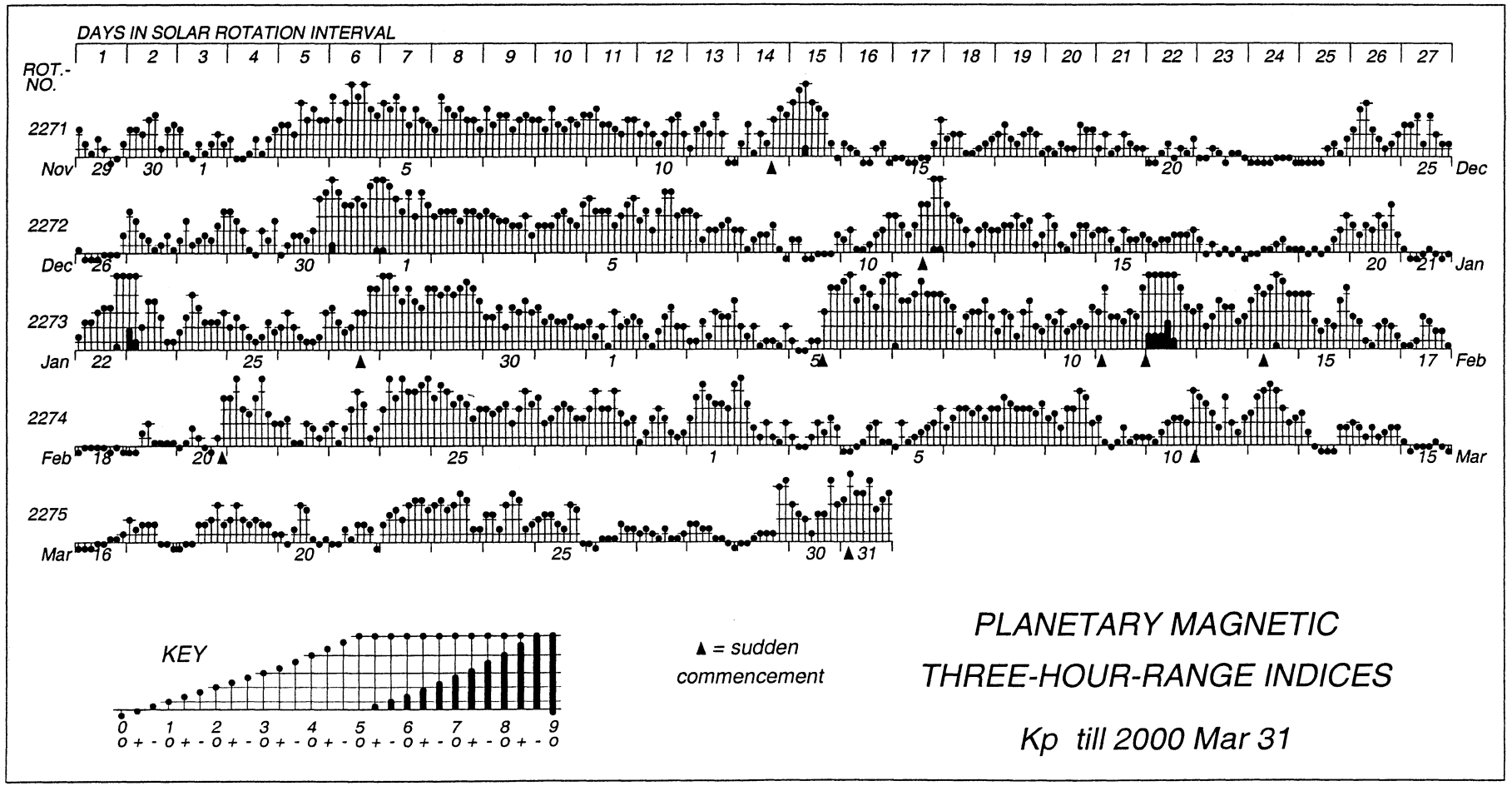


Day	Apr 99	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 00	Feb	Mar
1	12	21	6	6	8	20	9	10	5	30	8	21
2	10	11	10	26	6	9	13	7	5	16	8	11
3	10	8	7	9	4	15	8	5	16	12	10	5
4	14	4	8	2	10	11	17	5	30	13	5	3
5	12	7	4	2	7	6	18	5	20	19	12	6
6	10	9	3	8	15	5	6	10	18	19	34	12
7	11	7	5	4	10	18	5	31	16	10	31	16
8	8	4	13	6	7	8	7	29	14	5	15	14
9	6	5	14	4	13	9	6	28	14	3	11	4
10	16	4	4	4	5	16	33	18	10	6	10	9
11	10	2	4	4	6	10	29	26	7	24	17	13
12	8	8	5	10	8	31	46	10	11	10	60	19
13	3	25	4	4	8	46	23	43	26	9	14	4
14	7	8	2	5	4	21	31	11	3	8	33	6
15	4	6	6	8	19	27	31	5	4	6	17	2
16	18	3	7	4	29	31	26	14	5	6	7	2
17	47	2	6	3	29	16	21	12	7	3	6	4
18	6	27	6	4	28	13	6	17	6	3	1	6
19	12	10	4	4	24	9	6	12	5	5	3	7
20	24	7	2	5	36	8	3	9	3	10	5	6
21	12	5	2	14	5	11	20	12	2	2	21	4
22	4	3	2	25	12	50	91	11	1	22	6	12
23	5	8	4	11	31	28	32	19	2	29	11	14
24	6	11	4	11	29	5	26	21	11	13	30	11
25	4	15	3	8	9	4	16	18	10	7	20	8
26	6	6	18	6	16	20	10	4	2	8	16	3
27	14	7	25	5	13	43	19	2	7	17	13	4
28	19	7	24	9	12	27	21	8	8	32	16	4
29	24	3	6	6	10	25	9	4	8	30	7	10
30	23	4	3	53	23	26	6	10	11	15		12
31		2		28	22		10		36	10		23
Mean	12	8	7	10	15	19	19	14	10	13	16	9

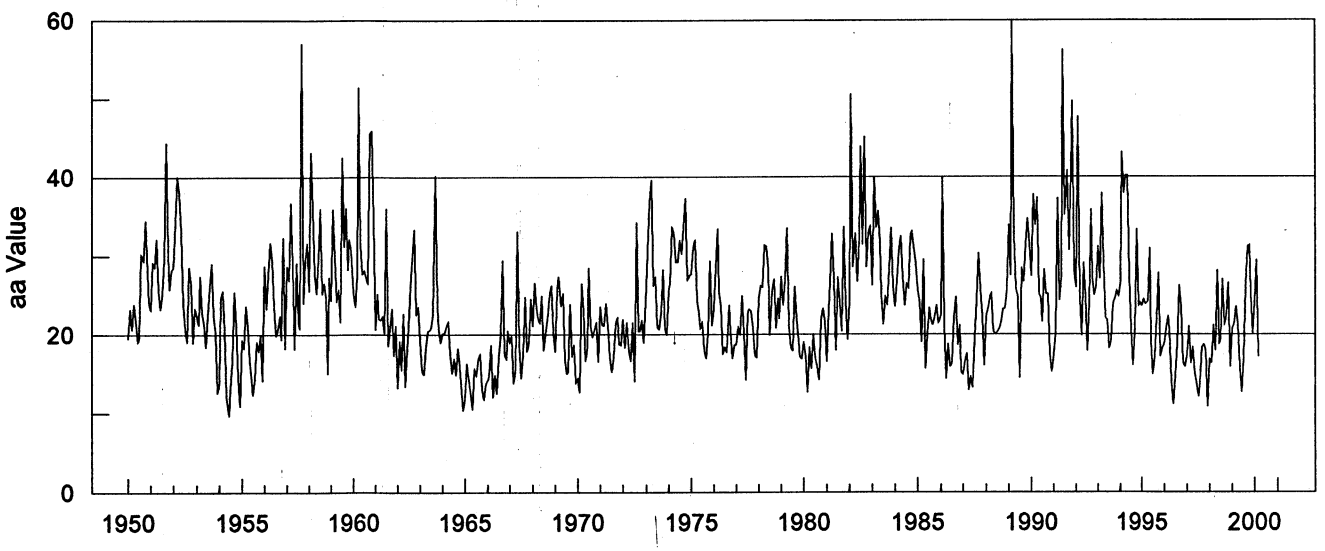
PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

GeoForschungsZentraum Potsdam

Kp through March 31, 2000



Monthly Mean aa Index Jan 1950 - Mar 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2	35.2	40.8	30.7	44.1	49.7	28.0	34.2
1992	25.9	47.7	24.5	19.8	29.1	24.8	17.9	24.1	35.8	27.0	25.0	26.1	27.3
1993	31.2	27.1	37.9	29.2	22.1	21.8	18.2	19.2	23.8	24.6	25.5	24.8	25.5
1994	26.5	43.2	37.9	40.2	40.2	27.2	20.6	16.0	20.2	33.3	23.6	24.1	29.4
1995	23.6	24.5	23.8	24.2	30.9	19.1	14.9	17.0	22.2	27.9	17.2	18.2	22.0
1996	18.8	20.8	22.3	20.5	14.0	11.1	14.7	18.8	26.2	23.5	16.3	15.9	18.6
1997	17.4	21.0	16.3	18.4	15.1	13.7	12.1	13.7	18.4	18.7	18.0	10.8	16.1
1998	16.8	16.4	21.2	18.0	28.1	18.8	19.3	27.0	21.1	22.4	26.5	15.9	21.0
1999	20.8	21.3	23.5	21.3	15.8	12.7	16.9	26.2	31.2	31.3	25.1	20.1	22.2
2000	24.2	29.4	17.1										23.6

PLANETARY GEOMAGNETIC ACTIVITY

3-HOUR-RANGE INDICES Km AND aa BY 27-DAY SOLAR ROTATION INTERVAL

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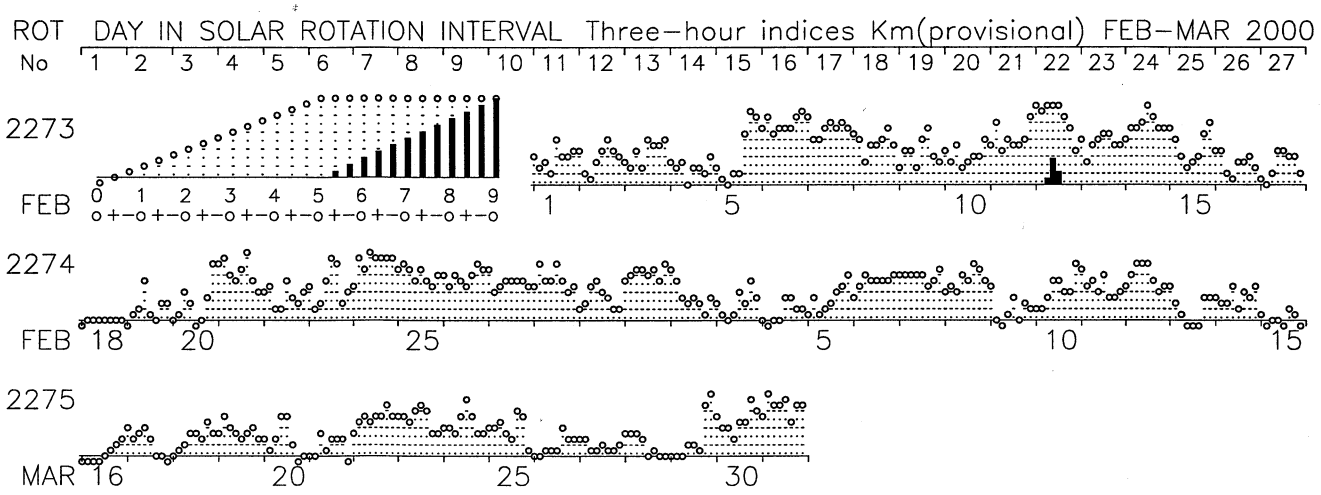
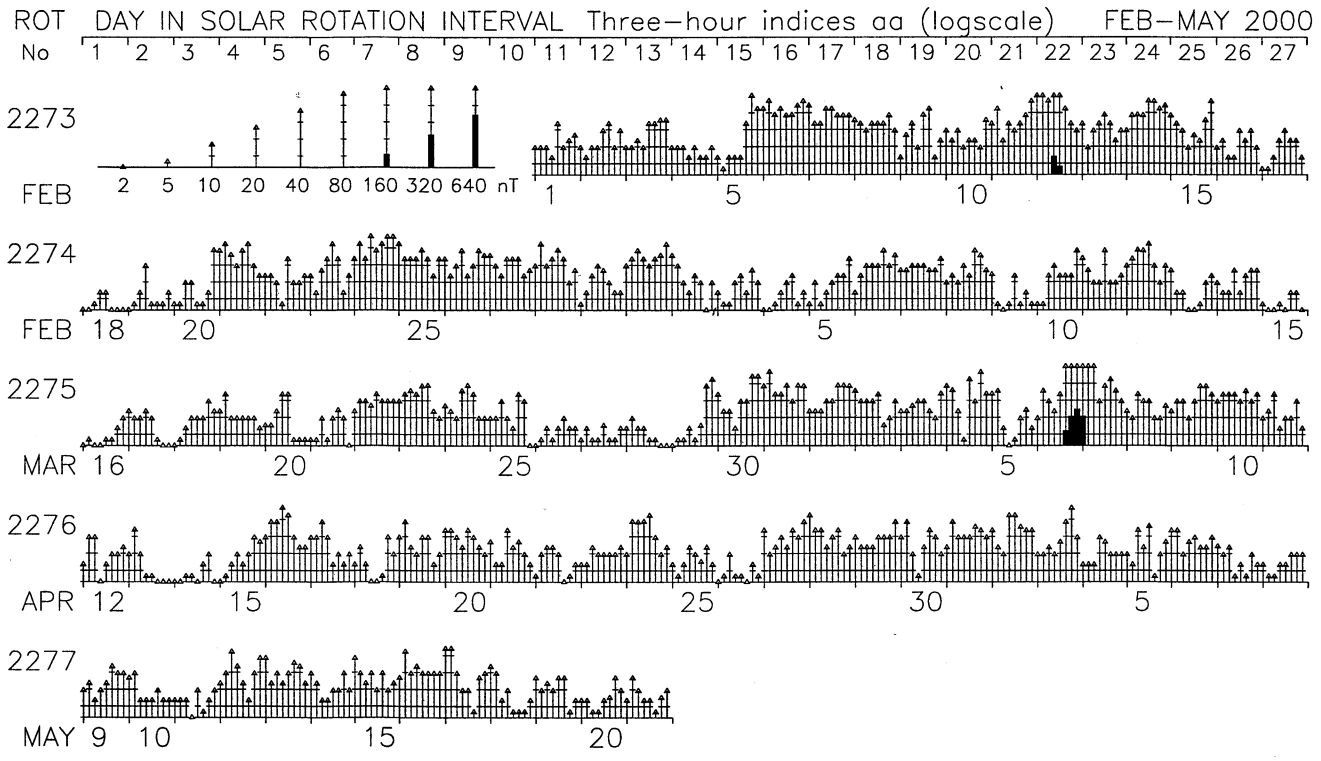


Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.



Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

MARCH 2000

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	U.T. 24
1	5	8	16	21	6	-6	-16	-25	-34	-40	-40	-37	-39	-42	-49	-49	-44	-36	-31	-24	-22	-25	-24	-19
2	-20	-23	-22	-21	-26	-28	-29	-25	-25	-24	-19	-17	-15	-15	-14	-12	-7	-4	-4	-4	-4	-5	-6	-1
3	1	1	1	0	0	-2	-3	-3	-5	-4	-2	-2	-5	-7	-4	-2	3	3	1	-2	-1	-1	4	3
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5	18	21	22	19	12	7	6	6	6	4	2	3	6	7	6	5	2	2	5	2	-4	-4	-9	-4
6	0	9	16	8	2	2	-2	-5	-9	-11	-5	-2	-2	-1	2	4	-1	-3	-7	-8	-15	-15	-14	-14
7	-17	-18	-17	-17	-27	-28	-24	-28	-32	-32	-24	-22	-22	-16	-16	-21	-20	-15	-11	-10	-16	-20	-17	-17
8	-17	-19	-16	-13	-16	-20	-20	-17	-18	-21	-28	-25	-19	-21	-22	-23	-30	-28	-23	-28	-37	-43	-38	-31
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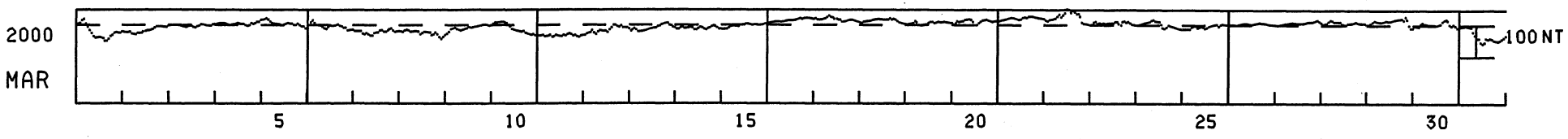
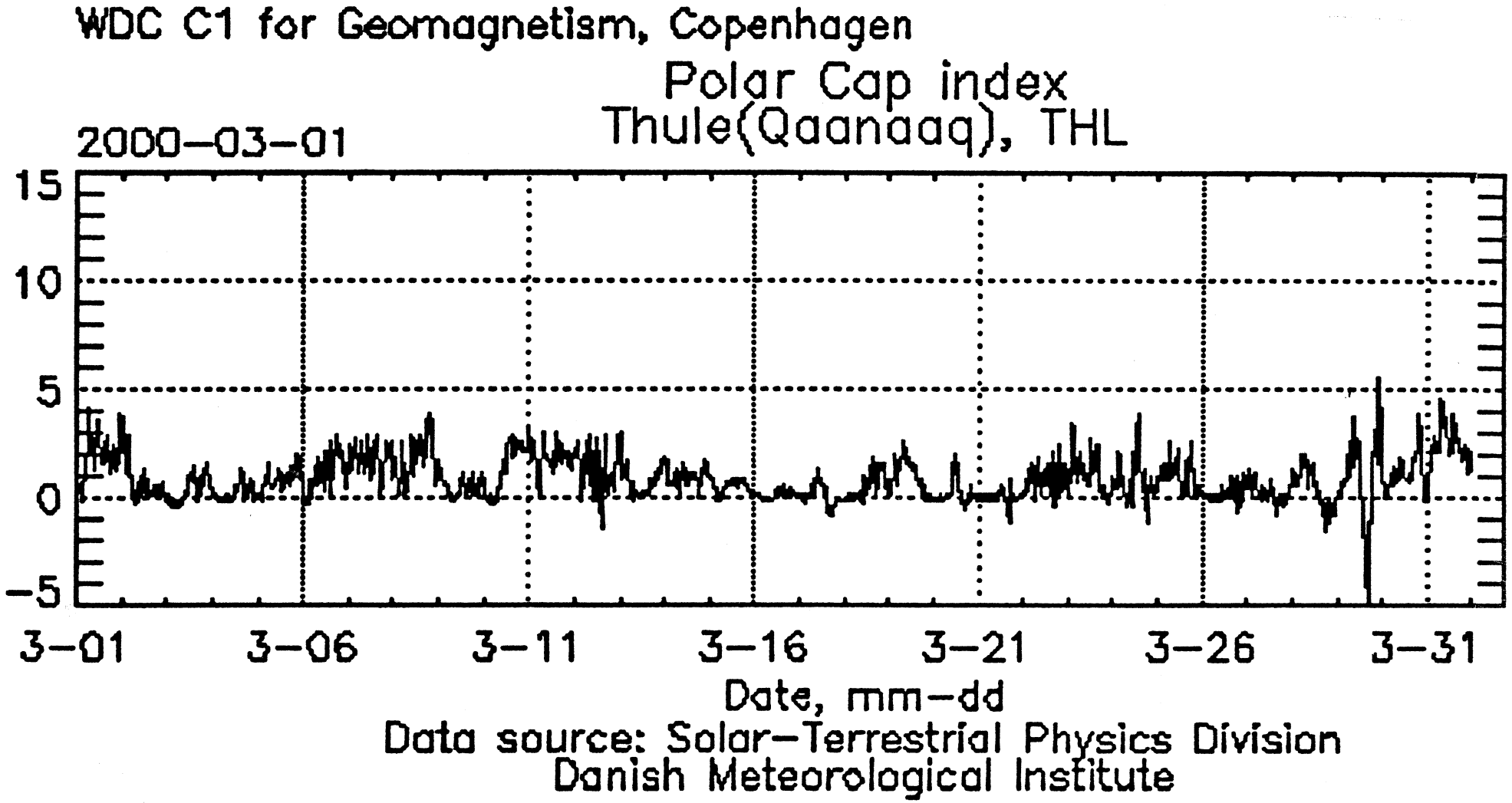


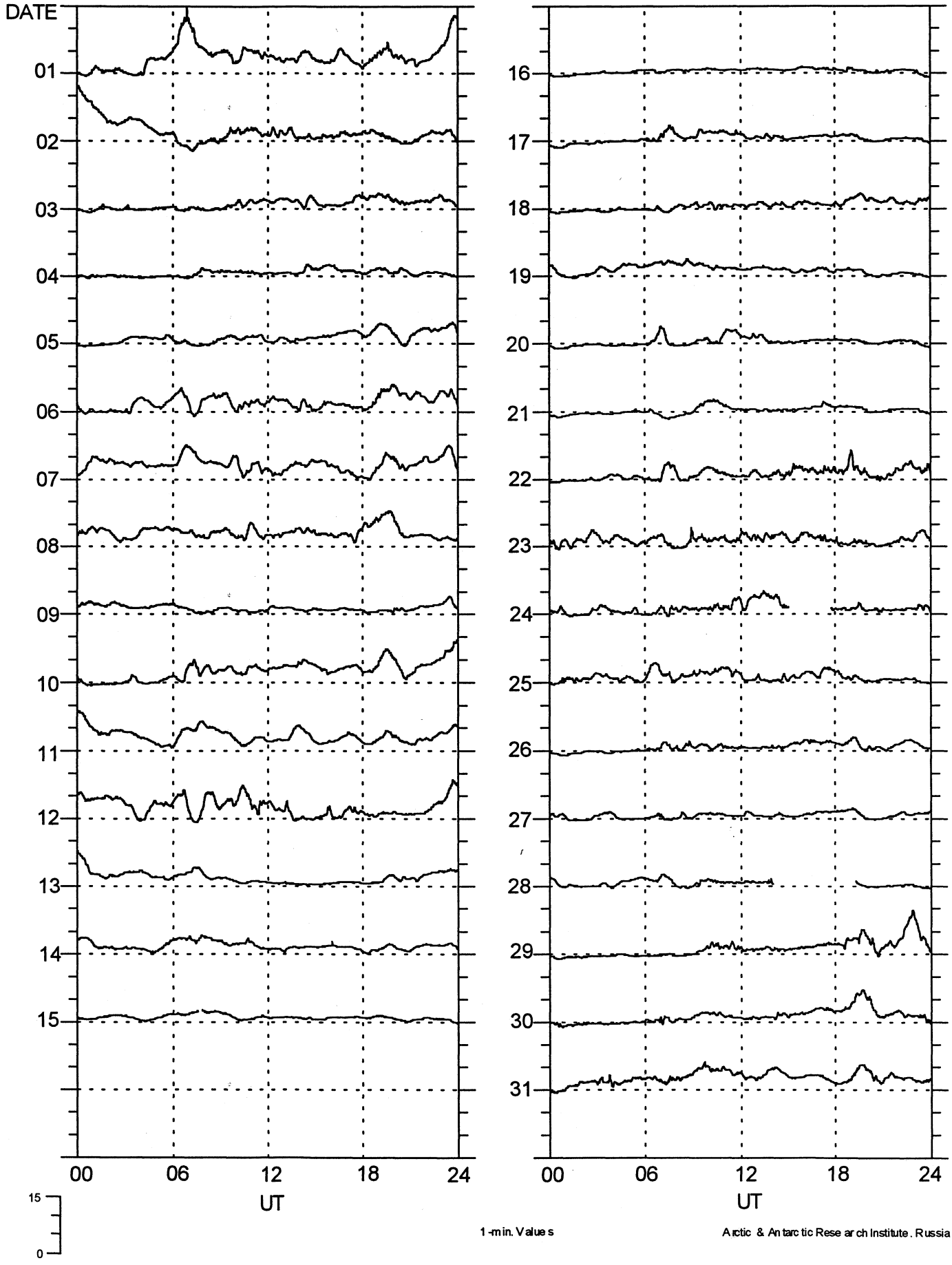

WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Thule(Qaanaaq), THL
2000-03-01
15
10
5
0
-5
3-01
3-06
3-11
3-16
3-21
3-26
3-31
Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

178
Mar 00

PC-INDEX

Vostok

March, 2000



1-min. Values

Arctic & Antarctic Research Institute. Russia

P R I N C I P A L M A G N E T I C S T O R M S

MARCH 2000

Sta	Geomag Lat	Commencement Day	Time (UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	Ranges K	D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
KRC	16.4N	01	0100	..	..	..	..	01(2,3)	5	6	113	32	02	08
UJJ	13.6N	01	0200	..	..	..	..		-	3	111	15	01	23
NGP	11.3N	01	0200	..	..	..	..		-	3	140	9	01	23
ABG	09.4N	01	0200	..	..	..	..	01(1,5,6)	4	3	125	25	01	23
HYB	07.6N	01	0100	..	..	..	..	01(1,3,6)	4	4	137	19	02	05
PND	02.0N	01	0200	..	..	..	..		-	2	146	50	01	23
TIR	00.6S	01	0200	..	..	..	..		-	--	--	--	01	23
UJJ	13.6N	06	1900	..	..	..	..		-	4	79	30	08	24
NGP	11.3N	06	1900	..	..	..	..		-	4	111	28	08	24
ABG	09.4N	06	1900	..	..	..	..	07(5,8)	4	4	97	41	08	24
PND	02.0N	06	1900	..	..	..	..		-	3	107	53	08	24
TIR	00.6S	06	1900	..	..	..	..		-	--	--	--	08	24
UJJ	13.6N	11	1300	..	..	..	..		-	5	76	35	12	19
NGP	11.3N	11	1300	..	..	..	..		-	5	105	25	12	19
ABG	09.4N	11	1300	..	..	..	..	12(6)	4	5	95	45	12	19
PND	02.0N	11	1300	..	..	..	..		-	4	120	40	12	19
TIR	00.6S	11	1300	..	..	..	..		-	--	--	--	12	19
KRC	16.4N	22	0415	..	..	..	..	20(4)	5	10	99	55	23	10
HYB	07.6N	22	0100	..	..	..	..	22 (3,5)	4	6	144	28	23	19
KRC	16.4N	29	1922	SC	- 1.0	23	16	29(7,8) 31(2)	5	8	78	41	31	07
UJJ	13.6N	29	1900	..	..	..	..		-	7	119	48	31	23
NGP	11.3N	29	1900	..	..	..	..		-	7	155	39	31	23
ABG	09.4N	29	1900	..	..	..	..	31(2,3)	5	6	145	62	31	23
HYB	07.6N	29	1700	..	..	..	..	31(2,3)	5	8	155	32	02	14
PND	02.0N	29	1900	..	..	..	..		-	4	189	82	31	23
TIR	00.6S	29	1900	..	..	..	..		-	--	--	--	31	23

Stations:

ABG = ALIBAG	CZT = PORT ALFRED	HON = HONOLULU	PMG = PORT MORESBY
AMS = MARTIN DE VIVIES	DRV = DUMONT D'URVILLE	HYB = HYDERABAD	PND = PONDICHERRY
ANN = ANNAMALAINAGAR	ETT = ETAIYAPURAM	JAI = JAIPUR	SHL = SHILLONG
BJI = BEIJING	GNA = GNANGARA	KRC = KARACHI	SIT = SITKA
CAN = CANBERRA	GUA = GUAM	NGP = NAGPUR	TIR = TIRUNELVELI
CMO = COLLEGE	HER = HERMANUS	PAF = PORT AUX FRANCAIS	UJJ = UJJAIN

Stations reporting no storms observed: BJI HER

MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

MARCH 2000

Storm Sudden Commencements (SSC)

Day	Time	Quality: Station Group*
29	1924	A: HRB, COI GUI
		B: NAG* EBR*
		C: BDV GCK QUE LNP

Solar Flare Effects (sfe)

Day	Begin-End	Station(s)
02	0820-0838	BDV+ HYB GNA
02	1341-1410	GUI
14	0741-0759	GNA
17	0116-0123	NAG (si: HRB)
17	0648-0656	NAG
24	0743-0806	HYB (ssc: LNP)
27	1358-1406	BDV+
31	0334-0346	QUE (ssc: NGK,si: EBR)
31	1653-1708	BDV+

REPORTING OBSERVATORIES (up to the 2nd of May 2000):
SOD NUR NGK BDV CLF HRB NAG GCK MMB EBR COI SPT KAK KNY QUE GUI LNP HYB GNA HER CNB

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The * means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).